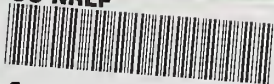


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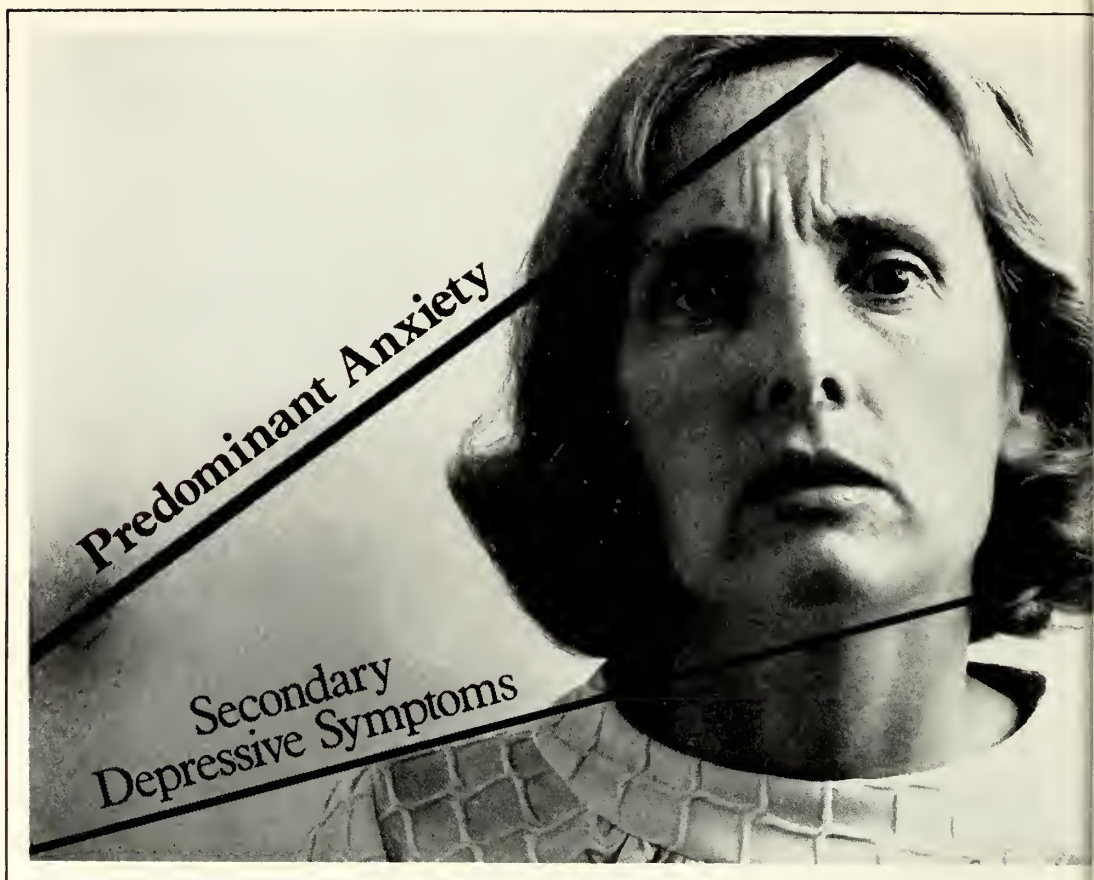
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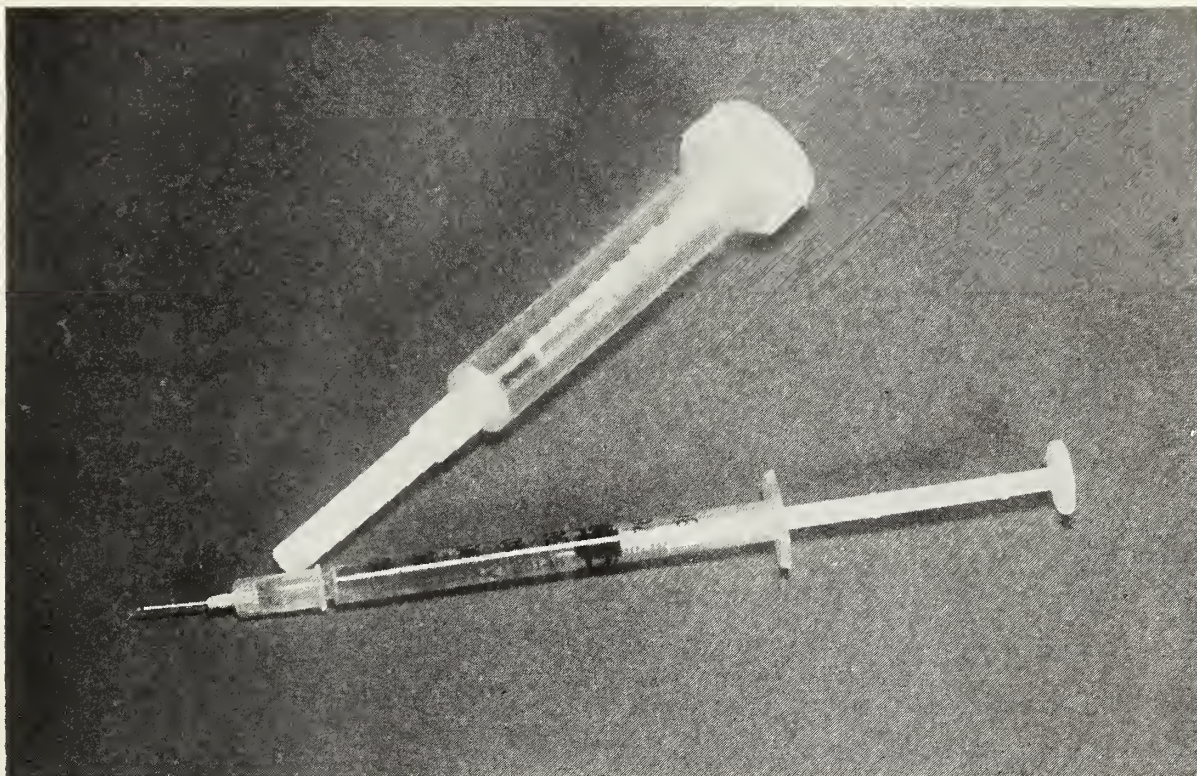
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Book REVIEWS

EDUCATING PERSONNEL FOR THE ALLIED HEALTH PROFESSIONS AND SERVICES, edited by Edmund J. McTernan and Robert O. Hawkins, Jr. The C. V. Mosby Company, St. Louis. 1972. 219 pages. \$10.50.

This book is the first of its kind. It provides the reader with an overview of the historical development as well as the underlying philosophy that permeated the unfolding of a new interdisciplinary profession, Allied Health. The book has many "firsts" and many fine "special features."

It is a classic in that its 19 chapters were contributed by 22 authors, each being either a founder or a "giant" contributor to some developmental aspect of this profession. Some of the chapters provide the first comprehensive, historical review of the fascinating and rapid growth of allied health and its representative association, ASHEP, from its inception to date. It is a first, also, in that it gives those administrative, curricular, and financial basics which are necessary to organize and administer an allied health program. Whether one reads the book for pleasure because of the fascinating historical coverage and outstanding authors, or for technical information, it makes for excellent reading. Since many people working in allied health administration enter the field with no specific allied health training, this book can be an extremely valuable reference source.

Besides the systematic review of those administrative concepts that pertain to the organization and implementation of an allied health program, the sections on curriculum, accreditation, and evaluation are a reliable source of general information. The part titled "Matters of Special Interest" provides stimulating reading from a philosophical point of view as it describes the role that core curriculum, interdisciplinary studies, and innovative approaches in health care delivery will play in the future.

Although the section depicting financing of allied health education is concise and up to date, one has to realize that this structural framework will probably change so that sources for the financing of all health

education (federal, state, or private) will shift with time.

The reviewer is of the opinion that this book would be of value to anyone who is involved in any aspect of health care education and health care delivery. Only after reading the book can one appreciate the growth, complexity, and the future promise that the further development of this rapidly growing profession holds and the contribution it can make to improve health care services.—*D.C.R.*

IS MY BABY ALL RIGHT? by Virginia Apgar, M.D. and Joan Beck. Trident Press, New York. 1973. 492 pages, illustrated. \$9.95.

This rather complete book is touted by advertisements to be a must for the potential mother. The initial chapters of the book are concerned with how life begins with embryonic development, a chapter regarding genes and chromosomes, which is excellent and would make fine reading for any young person. The majority of the rest of the book is then concerned with abnormalities which can occur. These are frightening to say the least, although factual. Each chapter states the statistics regarding occurrence of problems; when all of these statistics are added together, the chances of having an abnormal child are 126 out of 1,000 live births. This includes minimal brain dysfunction, congenital heart defects, hearing loss, hemophilia, hydrocephalus, mental retardation, chromosomal abnormalities, and even learning disabilities. One would wonder after reading these if the title might not better be, "How Could My Baby Be All Right?"

Although informative, accurate, and complete, the reviewer sincerely doubts the usefulness of this book for the prospective mother and father. If one could detach the first few chapters from the book, they would make excellent reading; however, the reviewer fears that most prospective parents might develop anxieties perhaps outweighing the benefits by reading the remainder of the book.—*D.A.K.*

SYMPOSIUM ON AESTHETIC SURGERY OF THE FACE, EYELID, AND BREAST, edited by Frank W. Master, M.D. and John R. Lewis, Jr., M.D. The C. V. Mosby Company, St. Louis. 1972. 222 pages, 446 illustrations. \$35.50.

It is the reviewer's opinion that the book itself is a symposium of articles written by different authors during a meeting of plastic surgeons.

The book is very honest in its presentation of the different authors and their discourses. This is a good book for plastic surgeons to glance over, so that they would realize some complications and aspects of certain operations and the pros and cons of certain theories and procedures. This is not a book that should be used as a textbook for plastic surgeons, because it is a piecemeal type of gathering of papers rather than a systemically organized book of chapters of presentations.

All in all, this book makes good and interesting reading.—R.C.Y.

AAMA PEDIATRICS EXAMINATION

A specialty certification examination in pediatrics will be offered for the first time in 1974 by the American Association of Medical Assistants (AAMA), in cooperation with the American Academy of Pediatrics. Future cooperation with other specialty societies is planned by the AAMA Certifying Board.

February 1 is the deadline for applications for the general certification examination as well as the new pediatric classification. The one-day written exam will be given on June 28, at more than 70 test centers throughout the country.

Certification is available in two regular categories: Administrative, which tests competency in office managerial, secretarial and clerical duties; and Clinical, which relates to medical and laboratory principles and procedures. The new Pediatric certificate will designate those who successfully demonstrate knowledge of that particular specialty.

The certification examination identifies those qualified as top-level medical assistants. As of June, 1973, there were 1,210 assistants who have earned the CMA designation.

Certain eligibility requirements are established for employed medical assistants and for medical assisting students and instructors who wish to take the examination. Applicants may obtain an information packet from the American Association of Medical Assistants, 1 East Wacker Drive, Chicago 60601.

The St. Louis Civil Service Region offers an excellent opportunity for an experienced internist, generalist, or other clinical physician to assist in the medical operation of the federal government's employment and disability retirement programs. The physician we seek must be capable of medically adjudicating disability retirement claims of civilian federal employees. We offer a minimum starting salary of \$28,287, plus excellent fringe benefits including health and life insurance and a very liberal retirement plan. We will also assume the costs of relocating to our position in St. Louis. U.S. citizenship is required in this career Civil Service position. Those interested should call John F. Northrup, phone (314) 622-4271, or write to the U.S. Civil Service Commission, St. Louis Region, 1520 Market Street, St. Louis, Missouri 63103. We are an equal opportunity employer.

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Patient P.T.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file,
Hoffmann-La Roche
Inc., Nutley, N.J



Woman's Auxiliary



... Legislation

A happy New Year to all! We hope your Christmas was a time of enrichment and beauty, and pray that out of the confusion of 1973, we will emerge as a stronger, and more dedicated people in 1974.

The second week in January brings the opening of the state legislature, and the reconvening of Congress during the fourth. Therefore, it is timely to discuss briefly something about the Auxiliary's legislation program.

In order to be better informed and more effective legislatively, a plan for our education and action has evolved. Have you heard about LEGS? The LEGS-LINE is the communication system to get letters and calls to our congressmen or state representatives from Auxiliary members on important legislative proposals dealing with medicine. LEGS stands for *Legislative Effort Group Systems*. Starting at the top, state chairman, Diane Sanders, and co-chairman, Ann Remple, call the representatives from each of the five districts of Kansas. Then they call the president or legislation chairman of each local Auxiliary, who in turn calls the team members from her group for an alert on a specific piece of legislation. This pyramid is effective both statewide and nationally. It places special emphasis on the need for their elected representatives to look more closely at a piece of medical or health legislation.

The national Auxiliary has only 90,000 members, but their motivation comes from their husbands, and thus, as an educated group, it is in a position to increase the understanding about programs that are of particular importance to physicians and their wives.

The state medical society's Committee on Legislation has invited our two co-chairmen to sit in on their weekly meetings during the legislative session. In this way, the Auxiliary is made aware directly of current action, and is much more effective in assisting the medical society when asked to do so.

But this is only part of the effort. We also educate our own members by including materials and ideas shared by national Auxiliary at meetings and workshops, dispersed in our own meetings, outlined in the

Auxiliary News, and in turn see that they are put to use in local groups. Plans include visits to the legislature, encouragement of members to involve themselves in political action, working with registration and absentee voter campaigns, phone calls to radio and TV stations regarding medical health issues, and taking part in our own AMPAC organization.

AMPAC is a national organization supported by AMA for political action: (1) to encourage bipartisan political activity by physicians and their wives; and (2) to assist in support of candidates favorable to medicine, for election to the U. S. Senate and to the House of Representatives. Kansas has a counterpart in KaMPAC, an autonomous organization, separate from both the AMA and the Kansas Medical Society.

The PAC Board is composed of both a physician and an Auxilian from each of the five districts. Since political action is vital to the future of medicine, the education and candidate-support areas are both effective and necessary tools for involvement.

Legislative programs now pending and awaiting final consideration are: HMOs and PSROs, the potential Child Abuse Protection Act, a Catastrophic Illness bill, and a National Health Insurance (NHI) program. We will try to educate our own members, and urge their sharing this information with others. When a vote becomes a possibility on NHI, or other critical legislation, a LEGS ALERT will be called!

We hope that many of our readers will avail themselves of a fine opportunity March 1 and 2, when our conference on "The Young Family, '74" will be held at Washburn University, Topeka. We are inviting interested persons from across the state to share in discussion with Dr. Lee Salk, popular writer on family relationships and professor at Cornell University. Leaders from both the teaching and private sectors of medicine in Kansas will assist. Dr. Harold Voth, of the Menninger Foundation, will provide the psychiatric approach.

Katie Keys

Month in Washington

Legislation liberalizing tax treatment of retirement savings by the self-employed seems to be moving closer to congressional enactment in the next session.

The House Ways and Means Committee has tentatively approved the Senate provision allowing self-employed people such as lawyers, dentists, and physicians to claim tax deductions on \$7,500 a year, or 15 per cent of income, for sums placed in qualified pension plans. This compares with the previous Keogh limit of \$2,500, or 10 per cent of income.

The threat of a strict limitation on pension tax deferrals in corporations, including professional service corporations, appears to have diminished. The Ways and Means Committee in general accepted the principle in the Senate bill of a \$75,000 annual limit on retirement benefit plans (so-called defined benefit plans) and on others (defined contribution plans which included profit-sharing, money purchase, etc.) of a retirement benefit not to exceed 100 per cent of the high three years of average compensation.

Ways and Means must still take a final vote and also work out with the House Education and Labor Committee an agreement on the form the overall legislation—a sweeping pension reform measure—will take when presented on the House floor. Defeated in Ways and Means was a move by labor, an arch enemy of the Keogh provision, to reduce the tax deferral to a maximum of \$5,000 per year.

President Nixon is correct in his statement that home temperatures in the mid-60s are, in some ways, healthier than temperatures in the mid-70s, according to William Barclay, M.D., Assistant Executive Vice President for Scientific Affairs, American Medical Association.

"Heating the interior of homes and offices during the winter removes moisture from the air. The higher the temperature, the dryer the air. Air with little moisture aggravates bronchial and other respiratory problems. It can contribute to dry throat and nose, coughs, and dry skin.

"The respiratory system doesn't cope well with the sudden changes in temperature. Moving from an overly warm room into outside cold affects the body adversely, causing coughs and respiratory problems. The body adjusts to temperature changes gradually. We feel the cold more acutely on the first cold day in the fall than in January. We do not adapt well to abrupt temperature changes."

A three-year, \$185 million bill to help set up emergency medical units around the nation has been signed into law by President Nixon.

The bill authorizes grants and contracts for feasibility studies, planning, establishment, operation, and expansion of emergency medical systems (EMS) as well as research and training. Rep. Tim Lee Carter, M.D. (R-Ky.) said in House debate it would assist communities throughout the nation to develop and improve their emergency medical services systems and "contribute directly to saving tens of thousands of lives each year."

President Nixon had criticized the bill in a veto earlier this year, contending that existing federal and state programs are adequate to handle the problem. The veto led to a major confrontation with Congress last September, in which the Administration won when the House failed by a narrow margin to muster the required two-thirds vote.

The bill increases from 50 to 75 per cent the federal share of grants for emergency programs, and earmarks 20 per cent of grants for rural areas.

The Administration's prime objective to the earlier bill was an amendment ordering that all public health service hospitals be kept open. The EMS law does not contain this provision. However, the PHS hospitals were kept alive by a rider to a military appropriations bill that was subsequently signed into law.

The White House has said that it plans to designate enough radio frequencies for emergency medical service to serve the entire country.

Clay T. Whitehead, director of the White House Office of Telecommunications Policy, says this will be a vital first step in giving American communities the kind of integrated emergency medical services they need to save thousands of lives a year among persons stricken by heart attacks and strokes or injured in accidents. Many such persons now die because they do not get adequate emergency care before they reach a hospital.

Dr. Charles C. Edwards, Assistant Secretary for Health in the Department of Health, Education and Welfare, said the department was putting a high priority on efforts to develop an efficient emergency medical system throughout the United States. How much of the effort should be federal and how much locally initiated is under study, he said.

The Administration plan calls for allocating 38 radio frequencies for emergency medical use throughout the United States. Mr. Whitehead said 22 were already available, but on a much less standardized basis. Some of the others are now used by the Department of Defense and other federal agencies. Still others are used for highway callboxes, ski patrols, and the like. A few are not allocated.



Pediatric Diet

As a Risk Factor in Coronary Artery Disease

JAMES J. NORA, M.D. and

AUDREY H. NORA, M.D., *Denver, Colorado*

THE CONCEPT OF "RISK" in both nutrition and heart disease can be traced back through the centuries. Rickets in 18th century Sweden was attributed to the risk factors: winter season, keeping children indoors, and swaddling. Rheumatic fever in early 20th century Boston seemed to correlate with red hair. Osler appreciated the risk of a positive family history for coronary artery disease. The correctness or incorrectness of each of these particular risk factors is less important than the principle they reveal about risk. Risks are the hereditary and environmental factors that predispose to disease. In some instances the risk is mainly hereditary, in others mostly environmental; but most often, in cardiovascular disease, there is an interaction of heredity and environment. This interaction may be noted in *Figure 1*. Coronary artery disease, as we currently visualize it, is in approximately the middle of the continuum from heredity to environment.

A number of hereditary and environmental risk factors have been found to correlate with early-onset coronary artery disease from epidemiologic studies. Among these are hereditary errors of lipoprotein metabolism which interact with the environmental risks of diet and obesity. These problems are presumably identifiable in the pediatric patient and

constitute the subject matter for the major portion of this presentation. Other risk factors such as personality, stress and striving, hypertension, inadequate exercise, cigarette smoking, and coronary artery anatomy have varying degrees of relevance to the pediatric patient, although the deleterious effects of many of these factors may not be a problem of childhood.

Hereditary Risk

It is clear that individuals, families, even races, differ in their predisposition to coronary artery disease. In the Framingham study,¹ black males eating higher saturated fat and cholesterol diets and with significantly greater systemic hypertension (one of the most important risk factors) still had a much lower frequency of coronary artery disease. The Masai tribesmen, living on an incredible (by Western standards) high-cholesterol diet of meat and blood, do not have high serum cholesterol levels.

Some individuals (type IIa homozygous hyperlipoproteinemia) abiding by the most rigorous dietary restrictions of cholesterol and saturated fat can-

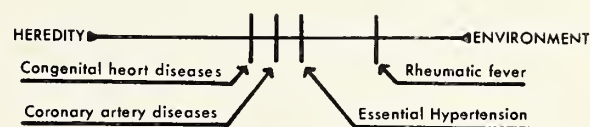


Figure 1. Hypothetical position of coronary artery disease with relation to other cardiovascular diseases on the continuum of hereditary and environmental influences.

From the Department of Pediatrics, University of Colorado Medical Center, Denver, Colorado 80220.

Supported by grant HL 05981 from the National Heart and Lung Institute, National Institutes of Health.

Presented at the 114th annual meeting of the Kansas Medical Society, May 8, 1973, Wichita.

not achieve cholesterol levels below the 600 mg per cent, and die of myocardial infarctions in their teens. Between the extremes of the type IIa homozygote and the Masai warrior reside the majority of mankind.

The problem is how to identify patients at risk and to introduce measures at a time when they may still be effective in preventing early-onset coronary artery disease. Intervention during the fourth and fifth decades has not proved satisfactory. In what may be taken as a significant conclusion of the Framingham study, Kannel and Dawber² published a paper in 1972 entitled, "Atherosclerosis as a Pediatric Problem."

A classic picture of an adult at great risk of coronary artery disease is the 45-year-old obese male, hypertensive, cigarette smoker, whose life style is characterized by stress and striving, and who has a type II or type IV hyperlipoproteinemia. But how can this patient be recognized in childhood?

The lipoprotein profile potentially offers one of the best and earliest means for identification. The phenotypes devised by Fredrickson³ are most frequently used and risk data related to these phenotypes have been acquired. *Table I* lists biochemical characteristics of the six Fredrickson phenotypes. A traditional analysis of serum for a lipoprotein abnormality would consist of serum cholesterol and triglyceride determinations, lipoprotein electrophoresis, and ultracentrifugation. Serum cholesterol predominates in low density lipoproteins (LDL or beta lp). Serum triglycerides roughly correspond to very low density lipoprotein (VLDL or pre-beta lp). Broad beta lipoproteins, found in type III disease represent a protein that appears on electrophoresis as fusion of beta and pre-beta. Chylomicrons (chylo) are the slowest in migrating on electrophoresis and may be appreciated by the creamy appearance they impart to standing serum.

By far the most common of these phenotypes are type IIb, type IV and type IIa, which may be recognized with reasonable accuracy by specified elevations of both serum cholesterol and triglycerides (type IIb), serum triglycerides alone (type IV), and serum cholesterol alone (type IIa). The frequency of these three disorders in the adult population of the United States may be as high as 12.3 per cent.⁴ The combined frequency of the remaining three Fredrickson phenotypes is less than 1 per cent.

Risks for onset of ischemic heart disease and myocardial infarction have been reported for type II and type IV disease.⁵ The mean age of onset coronary artery disease for type II patients is 43 years, and the risk of myocardial infarction by age 50 is 51 per cent. Type IV disease has a mean age of onset of 48 years, and a risk of infarction of 30 per cent by age

TABLE I
FREDRICKSON PHENOTYPES OF
HYPERLIPOPROTEINEMIAS

Type	Cholesterol	LDL Beta lp	Triglyceride	VLDL Pre-Beta	Broad Beta	Chylomicrons
I	+					+
IIa	+	+				
IIb	+	+	+	+		
III	+		+		+	
IV			+	+		
V	+		+	+		+

50. The risk of death by age 50, combining both groups, is 7 per cent. To put it another way, 80 per cent of all patients with myocardial infarctions under age 50 have type II or type IV hyperlipoproteinemias.⁶

Logistically, an early way to identify patients at risk would be through the screening of cord blood samples for cholesterol and triglycerides. We,⁷ among other investigators, have found that the reliability and reproducibility of this method leaves much to be desired. We are attempting to develop further biochemical methods for screening the newborn, infant and child, which can confidently disclose who is at risk. It is safe to say that as of this time, no simple screening procedure has been demonstrated to be reliable in the identification of the infant and child at risk, although longitudinal studies may reveal that screening for cholesterol, triglycerides, and alpha lipoprotein may characterize the pediatric patient at risk, and may be able to achieve this goal in the pre-school patient or perhaps even the infant.

Environmental Risk

The United States, through immigration, has provided some reasonable experiments in nature. Emigrants from Europe and Asia have been compared with relatives remaining in their native countries, and a significant increase in coronary artery disease has been recognized in those moving to the United States. There is no question that environment plays an important role.

This presentation will not dwell on the role of the many interacting environmental factors in coronary artery disease. Diet is the topic of concern, but unfortunately there are no definitive answers as yet. It seems unfair that one individual may be able to consume large amounts of cholesterol and saturated fats without producing elevations in serum cholesterol and triglycerides, whereas another cannot reduce

serum lipid levels to normal even on the most restricted diets. This is the influence of heredity—and dietary advice has proved to be more meaningful in adults when it is applied with a full knowledge of a patient's biochemical defect.

For example, the thrust of dietary management in the type IV patient is the achievement of normal body weight, controlled carbohydrate intake with modified fat and cholesterol intake. However, IIa patient does not profit from carbohydrate control, must have a rigorous lowering of cholesterol and saturated fat intake, and should have added polyunsaturated fats.

What should be emphasized is that the role of strict dietary management in the pediatric patient has not been established any more than the confident identification of the pediatric patient at risk has been established. In fact, the pediatric patient on a strict diet prescribed for a given phenotype may behave in a brittle way. A patient with type IIb disease subjected mistakenly to a type IV diet could flare up with deranged biochemical values and appear to convert to type IIa.

Because of the pessimistic outlook that reversibility of coronary arterial disease becomes unlikely after age 20, there is a great feeling of urgency that something must be done—now. We concur with this feeling of urgency, but caution against premature policies based on inadequate data. Within five years, ongoing studies should provide the necessary data base on which to structure informed regimens of dietary management—which in turn derive from a confident identification of the patient at risk.

Until that time, dietary regimens that are not unduly restrictive would seem prudent. Many young people, disenchanted with the increasing artificiality of our environment, are already seeking a return to "natural foods." A healthful diet for any pediatric patient (whether or not he is at risk of coronary artery disease) would stress maintaining ideal weight and judicious limitation of cholesterol, saturated fats, and refined carbohydrate, with an emphasis on skim rather than whole milk, more fish and poultry and less meat, less ice cream, candy, and pastries. These traditional recommendations of puritanical grandparents and scoffed at by permissive parents are back in style.

The physician counseling the pediatric patient about what constitutes a healthful diet may wish to review the constituents of common foods (and may

be surprised at how little or how incorrectly he remembers what is in these foods). For example steaks, stew meat, hamburger, and rump roast each have twice as many grams of fat as protein. In some lipid laboratories, the provocative fatty meal to raise acute serum lipid levels is also the standard fare for the teenager: cheeseburger, french fries, and chocolate milk shake.

Although further experience will be required to define precisely what the ideal diet for the infant and child will be to insure cardiovascular health in adult life, a daily diet that should be desirable for any child may be summarized as follows: adequate high quality protein, vitamins, less than 35 per cent calories from fat (polyunsaturated/saturated ratio 2:1), and less than 200 mg of cholesterol.

In addition to diet, healthful living habits should be encouraged by example as well as education. Young people are too smart to accept as honest advice the recommendations of chain-smoking, overweight and under-exercised physicians and parents regarding smoking, diet, and exercise.

Concluding Statement

Coronary artery disease is epidemic in the United States today. Cardiovascular disease takes more lives than all other diseases combined. The trend is increasing, not decreasing, with premature coronary artery disease setting the pace. It has become clear that prevention and meaningful treatment are not successful if delayed to the fourth and fifth decades. Prevention of coronary artery disease is a pediatric problem.

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LEADERSHIP CONFERENCE

February 1-2, 1974

The Crown Center Hotel—Kansas City, Missouri

All members, and especially the presidents and secretaries of component county medical societies, are earnestly urged to attend this first annual conference which will include seminars and sections on administrative and organizational problems at the local level.

The speakers will include:

Malcolm C. Todd, M.D., Long Beach, Calif.—President-Elect, American Medical Association.

Jerome P. Lysaught, Ph.D., Rochester, New York—Director, National Commission for the Study of Nursing and Nursing Education.

Bill Roy, M.D., Washington, D. C.—U. S. Congressman, Kansas Second District.

Bernard P. Harrison, J.D., Chicago, Ill.—Director, Medical Practice Division, American Medical Association.

William O. Rieke, M.D., Kansas City, Kansas—Vice-Chancellor for Health Affairs, University of Kansas Medical Center.

Robert Haakinson, Ph.D., Philadelphia, Pa.—Associate Dean, School of Business Administration, Temple University.

The program will center around organizational and administrative problems encountered in local societies in communication with KMS and utilization of available information; legislative update—federal and state; the changing role of nursing in today's medicine; AMA and its relationship to the local practicing physician; and other topics.

More information will be forthcoming by mail and in subsequent issues of the JOURNAL. If you have questions, please contact the KMS Executive Office, either by calling collect, (913) 235-2383; or by writing, 1300 Topeka Avenue, Topeka, Kansas 66612.

ALL KMS MEMBERS ARE INVITED TO ATTEND

Cerebral Vasospasm

Subarachnoid Hemorrhage

ROBERT G. FISHER, M.D., *Oklahoma City, Oklahoma*

WHEN ASKED TO SPEAK before your Society, I was certainly honored but felt rather poorly informed and inadequate in knowing as little about Dr. Teachenor as I did. I was well informed by Dr. Harry Wilkins, my predecessor at Oklahoma, who spent a long time extolling a man who was responsible for his entering Neurological Surgery after interning at Kansas City General Hospital. I get the feeling that Dr. Teachenor was one of the most unsung giants in the early years of neurosurgery; perhaps, in his own way, more of a giant than many that were acclaimed so widely. I get the feeling that his most treasured assets were quietness and soundness.

You have asked me to discuss cerebral vasospasm. If I were to speak in typical Northern New England brevity and then sit down, I would remark, "Nobody knows what the hell causes it and for sure nobody knows how to treat the damn thing." I feel an obligation in the Teachenor lecture to humbly present what experience, experimental work, and practical solutions we may have effected and, perhaps, be able to communicate with you our ideas and hope that our reflections may yield some practical answers.

VASOSPASM OF THE BRAIN is present to a certain extent at all times—the tone of the vessels is not relaxed and the diameter of the artery is dependent on our acid-base stability not only of the vessels but of the bathing fluid, the cerebrospinal fluid (CSF) with good cardiac and pulmonary functions delivering carbon dioxide to the outside and introducing oxygen to the inside, our vascular system including the brain remains stable. No proven cases of abnormal vasospasm exist in the healthy patient. However, a large number of patients, in apparent good health, are so except for one of the common forms of vasospasm—migraine. Extensive vasoconstriction exists for reasons quite unknown to us. Dilatation later occurs accompanied by a severe headache frequently associated with nausea, vomiting, and scotomata. The patient may be frightened by partial or extensive neurological deficit such as visual distur-

bance, hemiplegia, etc. This does progress to infarction in some and, thus, we see that this form of vasospasm is far from innocent.

The vasospasm that haunts all of us, and so very often tragically so, is that resulting from subarachnoid hemorrhage (SAH). This most often is from rupture of a congenital malformation, whether this be an aneurysm or an arteriovenous malformation. In the case of the former, 50 per cent of the patients do not survive and we must ask ourselves why anyone survives when the top of their head literally blows off. There are generally no premonitory symptoms, and why aren't there—particularly if the vessel is so prone to go into spasm? Why doesn't an aneurysm resemble migraine and give the patient some fair warning that it is getting ready to rupture? We have recently learned that the Valsalva maneuver frequently accompanying the rupture of the aneurysm (such as in lifting, straining at stool, or intercourse) not only increases the venous pressure but also causes a very brief rise in arterial pressure, thus contributing to the catastrophe. One can explain the lack of hemorrhages in youth as being probably due to lack of major vessel degenerative change. However, if degenerative change is so important, it seems odd that subarachnoid hemorrhage from aneurysms drops off in the later decades.

I assume that at the immediate time of the catastrophic hemorrhage, the blood vessels must in their homeostatic fashion be putting up a great struggle for the preservation of their owner, the patient, and thus vascular spasm must be the mechanism that preserves the patient; it may be life saving at this stage, but life threatening or killing at a later stage, or perhaps immediately.

Subarachnoid hemorrhage was never meant to occur—in an obtuse way, I am trying to say that the patient either survives, being miserable with his symptoms, or he may die. The absorptive mechanism for the CSF is completely incapable of absorbing the blood, and the patient may never be the same either in his mental performance or neurological performance. He may be wrecked in many ways and, frequently, vasospasm may be the culprit.

Subarachnoid hemorrhage may or may not accompany heart disease, vascular disease in general, or vascular disease localized to certain structures. It is

Editor's Note: This paper was presented as a part of the Teachenor Memorial Lectures, and delivered before the Kansas City Neurosurgical Society, Kansas City, Missouri, on March 14, 1973.

odd that septicemia so infrequently results in mycotic aneurysms and likewise one never hears of childhood vasculitis resulting in rupture of the vessel; it only results in thrombosis of the vessel and is quite resistant to surgical correction.

At the recent conference on vasospasm held at the University of Mississippi, and well attended by many long interested in the topic, authorities had great difficulty in defining vasospasm. Contrary to this attitude, there is not an active neurosurgeon who does not know the events accompanying spasm with presumed poor perfusion of a vessel, the result of narrowing of the diameter of the vessel. He all too well knows the clinical features, he may have had some beneficial feature of a certain remedy like a medicine man; but he still has fear of the problem when viewed on an arteriogram. He will generally not attempt an operation viewing spasm on an arteriogram, and hopes Amicar and Aldomet will prevent rebleeding until the spasm subsides.

Most authorities regard spasm as being biphasic; and this does make sense. That is, there is an early response disappearing shortly, only to come on in stronger fashion and lasting longer at four to five days after the bleed. This may last for days or weeks, but American neurosurgeons have learned, in contrast to others, not to operate at this stage.

Spasm due to subarachnoid hemorrhage is generally confined to the intradural vessels; but I am continually reminded of the 9-year-old child I had some years ago, who had a III n. palsy due to a carotid aneurysm and an antegrade thrombosis of the carotid artery from the site of the aneurysm to the bifurcation of the carotid artery in the neck.

We are obviously puzzled by this dilemma and are most justified in attempting to understand the mechanism in similar fashion to Francis Echlin, the father of investigation of cerebral vasospasm.

I'm sure you are well aware of his works, first published in 1942; and, in his recent visit to the University of Oklahoma, he still in his retirement 30 years later is trying to unravel this mystery.

He first injected blood about the basilar artery of the cat and indicated the vessel went into spasm—its outer diameter and presumably its blood flow diminished. This work has constituted a model for many other investigators. From him and others, we have learned that clotted blood does not have this effect—we have learned that this is an onmipresent reaction in the rabbit, dog, monkey, and other animals. In this respect, an interesting paper came out from the Clinical Pharmacology Department of the University of Florence. This concerns the mixture of blood and CSF causing the liberation of kinins—these substances have a very specific effect on pain, cause cessation of neurological function whether this

be local or general, and presumably may be a serious factor in subarachnoid hemorrhage.

One also has to consider other compounds being liberated by the entry of blood into the CSF, other than kinins. Is angiotensin a factor or are the prostaglandins offensive? Prostaglandin F₂ alpha is very similar in its constrictive effects, like angiotensin.

Most attention has been paid to serotonin, a breakdown product of platelets. It has often been implicated as the factor in subarachnoid hemorrhage causing spasm; yet recently, due to Kapp, a polypeptide other than serotonin is regarded as the offender. Extensive investigations by a number of people at Duke, exclusive of Kapp, have not found the final factor. They remain at sea like everyone else; thus, the attempts at therapy are pure and simply empirical.

Over the years, investigators have assumed that a cerebral vessel may go into spasm by electrical, mechanical, or chemical means. Certainly, neurosurgeons are well aware of a cerebral vessel going into spasm when tampered with at surgery. The chemical factor, as we have stated, remains elusive, but perhaps both are at fault in subarachnoid hemorrhage.

The Falck technique for histochemical analysis of tissues including vessels has represented an advance in understanding tissue innervation, and likewise aiding us in having some idea of central transmitting messengers such as acetyl choline in the periphery. Life to us in neurological science is no longer the simple problem of learning that acetyl choline is released at nerve ends in transmission and rapidly destroyed by cholinesterase. We now talk of central transmitters such as noradrenalin, dopamine, GABA, glutamine, and other amino acids. Most of these are poorly understood by us. The Falck technique enables us to see noradrenalin fibers in blood vessels by fluorescent techniques. Noradrenalin is a member of the catecholamine group, all somewhat interrelated and basically coming from the tyrosine molecule, tyrosine being an amino acid. Dr. L. Pool, long recognized an authority on aneurysms, has interested most of his former residents on the topic of spasm. Fraser and Stein have arrived at conclusions that are somewhat enlightening to the field. Noradrenalin fibers were shown in a periarterial nerve plexus in the adventitia of major intracranial vessels. They noted that after repeated spasm of vessels, there was a complete absence of fluorescence or a depletion of noradrenalin. Thus, the question arose, why doesn't spasm wear itself out clinically? Well, we all know that it does. But why may it continue severely and infarct some? They also found that should noradrenalin be depleted from a vessel by pharmacological means, it will not go into spasm un-

less blood is introduced. They concluded that spasm must be produced by substances acting at the alpha adrenergic receptor site of the vessel wall, and blood contained a vasoconstrictor substance capable of acting at the receptor site. They showed that serotonin, applied to sympathectomized vessels, would constrict the vessels. So from this work, we are led to believe that the blood vessels of the brain are certainly prone to constrict under noradrenalin release, but this is not the sole factor and, perhaps, really may play only one part of cerebral vessel constriction.

Quite recently, Sundt, at the Mayo Clinic and well known not only for his innovative clip but likewise as a very young dynamic authority on cerebral vasculature, has likewise attempted to unravel this mystery. He has indicated that there are two different types of reacting arteries of the brain: (1) the "pressure head reservoir," or the conducting arteries in the subarachnoid space (our surgical problems); and (2) the penetrating vessels of the parenchyma of the brain. The first group are protected by the sympathetic nervous system from catecholamines. It actively participates in autoregulation by modulating myogenic tone of these vessels in response to altered perfusion pressures and distal circulatory demands. He feels these vessels are responsive to alterations in partial pressure of carbon dioxide ($p_a\text{CO}_2$) or extracellular pH; but focal autoregulation takes place at the level of the penetrating vessels due to tissue metabolism and cellular pH.

In subarachnoid hemorrhage, the granulated vesicles are functionally destroyed—yet he does not define the mechanism. Thus the conduits become sensitive to circulating catecholamines and vasoconstrictive agents from the blood in the subarachnoid space. The sympathetic system is incapable of modulating myogenic tone.

He further states that in focal cerebral ischemia, caused by occlusion of a single major vessel, the physiological dilation of the small penetrating arterioles from the lactic acid in the brain can't balance the drop in perfusion pressure of the "pressure reservoir." The conducting arteries are in spasm.

He postulates that circulating catecholamines ordinarily taken up by adrenergic nerves and the granulated vesicles accumulate the catecholamine. This ability is destroyed in subarachnoid hemorrhage and thus the adrenergic fiber is sensitized to the circulating catecholamines with severe spasm secondary; in other words, sensitization of the end organ. He also mentions that the content of calcium may be an important factor.

Our group discovered that there are sensitive and non-sensitive differences in animals to subarachnoid hemorrhages. By this, we mean that certain animals will display a marked degree of vasospasm to suba-

rachnoid hemorrhage while others are nonreactive and will have no spasm at all. This certainly is of interest to all of us. Some patients have no spasm, and our experiences are not all dismal in having uniform vasospasm pre- or postoperative or both in our patients.

Great attention has been focused on the catecholamines since 1949, when a difference of response was shown between alpha and beta adrenergic responses in blood vessels. Alpha adrenergic responses constrict and beta adrenergic responses dilate a vessel. It does follow that alpha blocking or beta stimulating may yield specifically what we are after—that is, dilatation of the vessel under very abnormal conditions, such as subarachnoid hemorrhage or trauma.

In the 1972 Transactions of the American Neurological Association, Kawamura attempted to histochemically pursue nerves on blood vessels of the surface and depths of the brain by electron microscopy. The paper is modest and I personally do not believe the claims are unreasonable, although one commentator on the paper so stated. This group found bundles of unmyelinated axones in the adventitia of intraparenchymal vessels. The vessels had one to four layers of muscle cells. They believed these to be adrenergic vessels, and made the interesting observation that they seemed to be more frequent in the midbrain and the pons, and were very much less in the diencephalon and the telencephalon. They also noted no innervation of the capillaries and the veins. From this interesting observation, one wonders whether the brain stem is far more geared for brain defense than the higher developmental centers of the brain, and this does make some degree of sense.

Our basic science wanderings may continue; but I must say that pharmacologists and physiologists probably can do far better than I in modern-day interpretations. Regardless of the mechanisms proposed, all of which are based on some degree of credulity, we still have the task of interpreting more clinical events and also getting at the all-important problem of therapy.

Clinically, many events certainly puzzle us—yet that all-important one of spasm after aneurysm surgery haunts us all, and has even caused some neurosurgeons to refuse to handle aneurysms until some effective agent for combating spasm is available. I again adhere to spasm being the chief reason for survival of the patient at the time of the bleed. I also agree that it is probably a biphasic phenomenon—and feel that every neurosurgeon has his pet therapy which has inconsistently worked for him and probably not for his colleagues. Our work has suggested an individual response, and this must be so from our clinical observations. Our experiences indicate the vasospasm may yield transient neurological

deficiencies or, if prolonged or aggravated by surgery, a form of trauma, then permanent deficiencies result. We believe that intracerebral and subdural clots likewise present factors contributing to lasting defects unless corrected. Spasm seems to affect the vessels adjacent to the offensive aneurysm; but there are times when vessels quite distant to the aneurysm are not only in spasm but do not permit the radiopaque substance to even fill the vessel. It is surprising to note that some authorities claim that 40 per cent of 54 patients have spasm of some vessels of the Circle. These same authors feel that spasm is more often found in patients with intracranial hematoma. They had little fear of spasm in the operating room, and operated on 21 of 54 patients believing that the mortality and morbidity of patients having aneurysm surgery was related more to the general condition of the patient than to spasm. Wilkins found spasm not related to arterial pressure, ECG changes, nor the arterial tension of the vessel adjacent to the aneurysm. They found 37 per cent of their ruptured aneurysms had spasm while only 6 per cent had intracerebral hemorrhage. Several authors have suggested that meningitis contributes to spasm, and Wilkins found spasm quite high in meningitis and subdural empyema.

Conway has shown that on patients having survived a subarachnoid hemorrhage for four weeks, that the arteries are narrowed by endothelial granulation tissue. The intima is thickened and this may be confused with prolonged vasospasm. However, Allcock and Drake have felt, as most of us do, that vasospasm is a reaction of vessels to insult and that the several authors who question whether vasospasm actually exists are most incorrect in their observations.

Despite Dickman's work, showing that anterior communicating aneurysms are most involved in spasm, we do not believe that any intracranial vessel is immune, and believe all depends on the site of the aneurysm.

Now let us approach what we are all so interested and frustrated about—therapy. Great claims have been made by many "medicine men"—but no one substance has had more than one report by any one author except a few diehards. The agents used in therapy are as follows.

Route in Man

I. Drugs to Dilate Cerebral Arteries or Antagonize Their Constriction:

A. Sympathetic amines, stimulating beta-adrenergic receptors

- | | |
|-------------|--------------|
| 1. Isuprel | Intracarotid |
| 2. Nylidrin | Intracarotid |

B. Alpha-adrenergic blocking agents

- | | |
|-------------------------------------|--|
| 1. Phenoxybenzamine (dibenzylamine) | Intracarotid |
| 2. Tolazoline (priscoline) | — |
| 3. Phentoamine (regitine) | Topical
Intravenous
Intracarotid |

C. Anti-adrenergic agents

- | | |
|--------------|---|
| 1. Bretylium | — |
|--------------|---|

D. Catecholamine depletors

- | | |
|--------------|---------|
| 1. Reserpine | "Human" |
|--------------|---------|

E. Parasympathetic agents

- | | |
|---------------------------|---|
| 1. Acetylcholine | — |
| 2. Choline | — |
| 3. Choline related agents | — |
| 4. Methacholine bromide | — |

F. Post ganglionic cholinergic blocking agents

- | | |
|-------------|---|
| 1. Atropine | — |
|-------------|---|

G. Neuromuscular blocking agents

- | | |
|--------------------|---|
| 1. Succinylcholine | — |
|--------------------|---|

H. Serotonin antagonists

- | | |
|-----------------|---|
| 1. Methysergide | — |
| 2. UML—491 | — |
| 3. 2-Bram LSD | — |
| 4. Tipindol | — |

I. Nitrites

- | | |
|-------------------|---|
| 1. Amyl nitrite | — |
| 2. Nitroglycerine | — |

J. Local anesthetic

- | | |
|-----------------|-----------|
| 1. Procaine | Topical |
| 2. Procainamide | Topical |
| 3. Lidocaine | See later |

K. Other drugs

- | | |
|--------------------------------------|--|
| 1. Papaverine | Intracarotid
(120-1,800 mg)
Intravenous
(500 mg)
Oral,
subarachnoid |
| 2. Magnesium sulfate | Intracarotid
(4,000 mg) |
| 3. Ethanol | Oral,
intravenous
Intracarotid |
| 4. Prostaglandin E1 | — |
| 5. Ethylene diamine tetraacetic acid | — |
| 6. Isosorbine dinitrate | — |
| 7. Cyclospasmal | — |
| 8. Nospan | Intracarotid |
| 9. Bradykinin | Intracarotid |
| 10. Thorazine | Intracarotid
(5-20 mg) |

11. Saline

12. Hydralazine

II. Drugs to prevent fibrinolysis

A. EACA

Oral
intravenous
(0.5-1 Gm/bi)

III. Drugs to reduce blood viscosity and prevent sludging

	<i>Route in Man</i>
A. Rheomacrodex	Intravenous (250-1,000 cc of 10% solv/day)
B. Heparin	Subcutaneous Intramuscular (50 mg/ 4-6 hrs) (5,000 USP units)
IV. Drugs to supply energy to, or reduce swelling of, ischemic brain or cerebral arteries	
A. Succinate mixture	—
B. Cortisone and other steroids	Intraspinal
C. Urea or mannitol	Intravenous
D. Adenosine triphosphate	—
E. $\text{NH}_4\text{Cl} + \text{CaCl}_2$	—
V. Gases to dilate cerebral arteries and increase cerebral oxygenation	
A. CO_2 : O_2 mixtures (atmospheric)	5-10% CO_2
B. CO_2 : O_2 mixtures (hyperbaric)	5% CO_2 or 100% O_2
VI. Techniques to increase cerebral blood pressure	
A. Pharmacological	Human
B. Mechanical	—
VII. Anesthetize or divide the stellate ganglion, superior cervical gan- glion or pericarotid sympathetic nerves	Human
VIII. Other procedures	
A. Removal of periarterial blood clot	Human
B. Postponement of surgery in period of spasm	Human
C. Avoidance hypothermia, hyperventilation, Fluothane anesthesia, hypotension, vasoconstrictive drugs and other factors that might intensify intracranial arterial spasm or its ischemic effects.	Human

This is a very lengthy and comprehensive array, and I do believe that anything this lengthy is pure and simply confirmation of the complete ineffectiveness of any one regime.

Our attention in animals has been directed toward the use of prostaglandin E1, and this has been used in man in homeopathic doses ineffectively at the Karoline Institute in Stockholm.

In baboons, by using up to 200 ng/kg/minute, we were able to radically alter the blood flow in the face of mean cerebrovascular resistance and thus the cerebral blood flow was radically increased.

With this in mind, we applied to the Food and Drug Administration for approval of giving prostaglandin E1 to patients dying of cerebrovascular spasm—a process all of us might recognize particu-

larly in the postoperative or for that matter preoperative phase. Our request was denied on the basis that our experimental numbers of animals were inadequate and a number of other obstructions were put up objecting to our data. It is of interest to note that prostaglandin E1 was given to eight normal males in a dose ranging from 0.032 to 0.58 ng/kg/minute at the Karoline Institute in Stockholm and reported in 1968. No complications were produced, although patients got severe headaches and backaches from the procedure. However, a recent report from the same institution indicates prostaglandin E1 has been used on patients having subarachnoid hemorrhage with no ill effects but no beneficial effects, although we must state that the dosages were homeopathic.

Despite our continued pressures in conjunction with the Upjohn Corporation of Kalamazoo, Michigan, we cannot persuade the FDA relenting and permitting us to use the drug. It is of interest to this group that one of your members has written both senators of Missouri indicating our frustration. We continue to watch patients die of spasm.

However, Sundt, Onofrio, and Meredith have made a clinical trial of isoproterenol (Isuprel) and lidocaine hydrochloride on 14 patients at the Mayo Clinic having subarachnoid hemorrhage with results of promise. All patients were women and all had deteriorating conditions resulting from spasm. They administered 0.4 to 0.8 mg of Isuprel in 150 cc of 5% glucose in water at 10-20 microdrops per minute, and this represented 150 cc every 8 hours or 450 cc every 24 hours. This drug is a β -adrenergic stimulator and dilates vessels. One worries about elevation of blood pressure with this drug, but this was not found. One also worries about cardiac arrhythmias, and this was neutralized by the use of lidocaine hydrochloride (Xylocaine) in the dosage of 2 gm in 450 cc of 5% glucose in 0.20% saline with 20 mEq potassium added to the solution. This was administered over 24 hours at a rate of 20 microdrops per minute. Most patients did not receive dexamethasone. They gave the drugs in a period ranging from two to nine days. Their results were listed as eight excellent, two good, one fair, and three deaths. The deaths in all fairness were in two grade IV and one grade III, and two of these patients were 65. Most of their cases had extensive neurological deficit which was reversed by the use of these two drugs.

This work in many respects finally places treatment of spasm not on an empiric basis, fraught with one's inadequate experiences, but finally places it on the logical basis of increased knowledge of neurohistology and neuropharmacology. Perhaps this work will progress and aid us in our therapeutic efforts.

In further considerations of vascular spasm, the

result of subarachnoid hemorrhage, we still have the fundamental problems to solve in addition to that of handling vessel tone. The major problems of when to operate, how to avoid rebleeding, and how to handle hydrocephalus still haunt us. We listen to the advocates of various therapeutic efforts and remain in state of confusion due to the efforts of Slosberg, Ransohoff, Drake, Mullen, Alksne, and many others. These many therapeutic approaches indicate great dissatisfaction with our present morbidity and mortality. We may conclude readily that the final answers in the treatment of subarachnoid hemorrhage will be established in the future, although our efforts to date are so far superior to the therapeutic nihilism of the days when I was a medical student. It is of interest to the group that in cases of subarachnoid hemorrhage brought in to Francis Grant, when I was an intern at University of Pennsylvania Hospital, the patients underwent a very daring injection of a radiopaque material with an open exposure of the carotid artery, an aneurysm might be diagnosed, and the patient sent as rapidly as possible to Walter Dandy in Baltimore. So we need not criticize our efforts too strenuously; we need continued effort at improving our efforts, but we also need con-

tinued research and most importantly patience in waiting for that bright young man to tell us all how it should be done.

In summary, I hope that we have retained the flavor of Dr. Teachenor's efforts at understanding a difficult neurosurgical problem such as cerebral vasospasm. I suspect he would enjoy participating in a lively debate about this topic should he be alive.

We have attempted to look at the clinical features, many of which we know well; but many of which remain puzzling. We have attempted to try to understand basic anatomy, histology, and pharmacology, much of which becomes increasingly complex with time. We remain frustrated in our therapeutic efforts, particularly after expenditure of a great amount of fortitude, physical energy, and time in doing our best efforts at surgery only to have a patient die or become comatose. There does seem to be hope for all of us, yet we must continue to look at the forest rather than the trees, and ask ourselves whether there are not other methods of handling subarachnoid hemorrhage rather than our present-day methods.

I thank you for this kind invitation and your attention during this discourse.

NOTICE FOR EXPERT WITNESSES

The Forensic Science Foundation is currently conducting a research project the objective of which is to define and evaluate the various services performed by the forensic science profession in the criminal justice process.

If, since 1972, you have given reports or testimony in *criminal* court or elsewhere in the *criminal* justice process as an expert witness for either the prosecution or for the defense, would you mail a card or note to the Forensic Sciences Foundation giving your name, address, and area of expertise. The Foundation, in turn, will mail to you a short questionnaire designed to group your type and degree of involvement with other individuals who have similar expertise.

If you know others who should be included in this survey, would you call their attention to this appeal for help?

It is emphasized that this is a federally sponsored research project. The results will not identify any individuals. No form of solicitation will result from your participation since all names, addresses, and questionnaires will be treated as confidential information.

We urgently need your support and solicit your help.

Contact: Forensic Sciences Foundation
11400 Rockville Pike
Rockville, Maryland 20852

Chronic Headache

Allergic Frontal Headaches

JAMES A. LOEFFLER, M.D., *Wichita*

CHRONIC RECURRENT HEADACHES are a difficult and frustrating problem to the patient and to the physician. Treatment of such a chronic problem depends upon: (1) the proper classification of the headache; and (2) the selection of the appropriate drug.¹ Difficulties arise because classification often relies upon the patient's history, which may be vague and rambling. Drug therapy can be less than satisfactory, since it stresses symptomatic rather than prophylactic therapy.

Five years ago, a prospect study was undertaken to determine if a specific type of headache occurred in an allergic population. Such a distinct headache, if it contained well-defined symptoms to form a distinct syndrome, would be of help to physicians in the classification of headache. Since allergic therapy, hyposensitization, food elimination, and environmental control are part of a prophylactic approach, therapy could be directed at preventing the symptoms.

Materials and Methods

One thousand allergy patients were followed from one to four years. All received allergy testing for foods, danders, and inhalants because of chronic nasal, lung, or skin symptoms. They were placed on food elimination, hyposensitization, environmental control, and medication as indicated. Regular check-ups were held at every two months, and then every six months with symptomatic care provided as needed.

Headaches were considered chronic only if they tended to recur over an extended period of time. They were classified according to their description—as migraine or cluster, or according to the location of the pain—frontal, temporal, or other.

Results

Frequency. A chronic headache that could be attributed to allergy occurred in 22 per cent of our population. As Table I indicates, allergic headaches were found in 4 per cent of children, 14 per cent of adolescents, and 44 per cent of adults. The male-female ratio was the same, except in the adult population where headaches occurred almost twice as often in females than males (49%:29%). This male-female ratio corresponds very closely to that found by Dr. Waters in his statistical study of headaches.²

TABLE I

<i>Patients</i>	<i>% Headaches</i>	
Total	1000	22
Male	467	12
Female	533	32
Children	435	4
Adolescents	133	14
Adults	432	41
Male	(123)	(29)
Female	(309)	(49)

Allergic Frontal Headache. As Table II indicates, one specific headache occurred almost ten times more often than any other type of recurrent headache in allergic patients. This headache, with pain occurring across the frontal area, was associated with symptoms characteristic enough to form a distinct syndrome—the allergic frontal headache. The syndrome is shown in Figure 1.

Pain. Patients with the allergic frontal headache complained of fullness, pressure, and dull to severe aching occurring across the frontal sinus area and radiating into the nose and antrum sinus. The pain was frequent, sometimes daily. The description and the location of pain closely conform to that referred by the layman as a "sinus headache."

Other Symptoms. The most prominent symptom associated with headache was chronic nasal congestion, occurring in 96 per cent of all patients with frontal allergic headaches. Although some patients experience significant rhinorrhea, many more com-

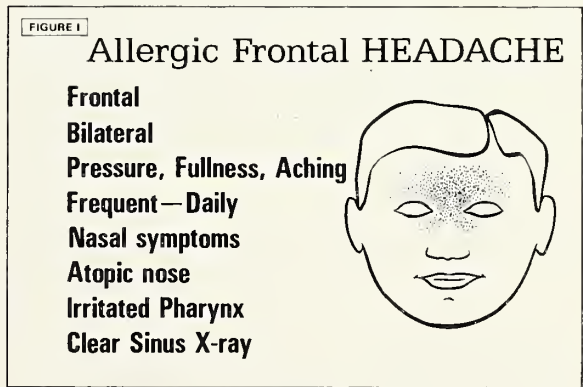


Figure 1

TABLE II
TYPE OF ALLERGIC HEADACHE

Type or Location	Patients*
Frontal sinus	195
General	15
Bitemporal	11
Migraine	4
Top of head	4

* Some patients had more than one kind of headache.

plained of postnasal discharge, often accompanied by laryngeal irritation (sore throats). When the drainage was severe, hoarseness and cough occurred.

Physical and Laboratory. Physical examination revealed pale, swollen nasal mucous membranes, post-nasal drainage, and a mildly irritated pharynx. Facial blood vessels and the tissue over the sinus area were not tender. Nasal culture and sinus x-rays invariably were normal.

Other Headaches. As Table II indicates, other types of headaches occurred much less frequently in the allergic population. The two clinical features common to all of these headaches, regardless of the location and the description, were: (1) chronic nasal congestion; and (2) chronic, sometimes daily, occurrence of symptoms.

Causes

Allergic. Ninety-three per cent of all the patients with the clinical symptoms of frontal headaches had positive skin test, as indicated in Table III. Eighty-seven per cent reacted to one or more of the inhalant allergies—dust, mold, pollens, and danders. Often, the occurrence of the headache could be attributed to the seasonal increase in symptoms provoked by pollens, or to obvious inhalant exposure such as dust.

Foods were considered a provocative factor for headaches only if they were positive on skin testing and if symptoms occurred with food challenge. Foods were a surprisingly important factor in producing headaches, with over 20 per cent of the patients experiencing symptoms after proper dietary

TABLE III

	Allergic Causes %
Positive skin tests	93
Positive reactions to inhalants	87
Positive reactions to foods	22

TABLE IV
50 FOOD ALLERGY PATIENTS

Food	Patients*
Chocolate	18
Milk	16
Cheese	11
Potato	11
Corn	11
Egg	11
Nuts	10
Tomato	8
Fish	7
Banana	7

* Some had more than one food allergy.

challenge. The more common offending foods are listed in Table IV.

Non-allergic Causes. In any allergic disease (asthma, rhinitis, hives, headache) symptoms that are provoked by allergies can also be caused by irritation or by non-allergic factors. Table V lists the more prominent irritants which were found to reproduce the frontal headache. Tobacco smoke and weather changes were by far the most common of the irritating factors. Chronic infection was seldom seen and, as noted before, sinus x-rays were usually normal.

TABLE V
NON-ALLERGIC CAUSES

Weather
Wind, dust
Cigarette smoke
Periods, menopause, B. C. pills
Hypoglycemia
Acute infection (occasionally)
Chronic infection (rare)

Treatment

Hyposensitization was instituted in all patients with strong reactions to inhalant allergies. Foods remained out of the diet when skin testing and repeated food challenges indicated they were important factors in producing headaches. Any flare-up of symptoms, whether produced by allergies or by the irritating factors, was handled by typical anti-allergic medication. Although many of the patients had long histories of the use of antibiotics, pain medications and tranquilizers, they responded much better to: (1) antihistamines; (2) adrenalin; and (3) adrenocorticotrophic hormone (ACTH) Gel. Allergy therapy either stopped or markedly reduced the severity and frequency of the allergic headache in 83 per cent of the patients.

Pathophysiology

The basic mechanism for producing the frontal headache can be found during the physical examination—the swollen nasal membranes. McGovern³ attributed pain in this area to the swollen membranes which put pressure on the nerves in the area of the sinus ostia, and pushed nasal tissue against the septal and lateral nasal walls. Holmes⁴ found that the swollen hypersensitive nasal mucosa produced a distinct headache. Two other authors, Hansen and Ryan,⁵⁻⁶ have also described pain resulting from the impaction of the edematous nasal mucosa between the septum and the lateral walls.

Wolff's⁷ textbook on headache provides experimental evidence for the causative relation between nasal congestion and frontal headache. By careful stimulation of the nasal and sinus structures, he found frontal pain was caused by engorgement and inflammation of the pain sensitive areas in turbinates, ostia, nasal frontal duct, and superior nasal structures. The sinuses, considered by the layman as a cause of pain, are much less sensitive. In fact, the frontal membranes are probably one of the least sensitive areas in the head. Sinus infection without nasal involvement produced little pain and required nasal swelling to produce the more typical frontal headache.

Summary

Chronic allergic headache is a distinct syndrome. It can be recognized by the patient's own description of the dull to severe aching or pressure across the frontal area with nasal congestion, postnasal drainage, and at times sore throat, hoarseness, and cough. The ability of allergic reaction to cause swollen nasal membranes results in the pain of the allergic frontal headache. Treatment is successful and consists of typical anti-allergic medication for the acute headache symptoms, and prophylactic therapy involving hyposensitization, food elimination, and environmental control.

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Medical HISTORY

Willis J. Potts, 1895-1968

RONALD D. GREENWOOD, M.D., *Boston, Massachusetts*

DOCTOR POTTS was born in Sheboygan, Wisconsin, on March 22, 1895, and when he was four years of age, his family moved to a farm at Cedar Grove in Sheboygan County. His father died, so young Willis and an older brother operated the farm. He saved enough money from the farm to put himself through a small academy at Cedar Grove, and then to begin his college career at Hope College, Holland, Michigan. Both institutions were operated by the American Reformed Church. In the middle of his senior year at Hope (1917), he entered World War I as a sergeant in the Army's Chemical Warfare Service, with which he served overseas for a year.

He transferred to the University of Chicago when he returned in 1919, and received a BS degree from there and a BA from Hope College.

Then, he planned to begin his medical training. He applied to the University of Chicago Medical School but they notified him he did not have the necessary prerequisites for admission—he lacked one credit in qualitative chemistry. He was referred through channels to Professor Julius Steiglitz, head of the department of chemistry, who said he was sympathetic but was unable to aid Potts; Steiglitz was leaving on his summer vacation, there were only 18 days left in the current term, and Potts couldn't complete the course in 18 days.

Potts, at this point, turned to go but fumbled at the door, pushing instead of pulling, not knowing that it opened inward and not outward. This "accidental circumstance" allowed the professor time for another word. He stopped Potts and informed him that if he could complete the course in 18 days and send the papers to the professor's summer home in the Catskills, they would be corrected. Thus, Potts

worked in the laboratory from 8:00 AM until closing time, and sent the papers to Steiglitz. The course was finished in 18 days.

Then began the years of medical training, including two years at the University of Chicago and two at Rush Medical College. Potts worked his way through all his training (in a cafeteria) and was rewarded with the MD degree in 1922. He interned at Presbyterian Hospital and was Logan Fellow of Surgery at Rush for two years, after which he began private practice in Oak Park in 1925. That was not a good year for Potts to be starting out fresh in practice and to have a wife, two children, and owe \$4,200. His practice was for the most part "general practice."

During his general practice years, Potts had one experience he recalled. He was puzzled by a little girl with a temperature of 104 F and red streaks on her forehead. The grandmother of the child said, "Well, Doc, it looks like erysipelas, don't it?" Potts, who until that moment had no idea of the diagnosis, immediately knew the grandmother was right.

In 1930 and 1931, he trained at Frankfurt University in Germany, then returned to Chicago and was affiliated with Presbyterian Hospital, where he was assistant associate attending surgeon and professor at Rush Medical College, 1931-1942.

During these years, Potts was a specialist in surgery, but in order to eat, he had to continue some general practice. Meanwhile, he was a member of the staff at Children's Memorial Hospital and was so interested in children that he decided to become more specialized and be a pediatric surgeon.

His work was interrupted by World War II. After Pearl Harbor, he volunteered for service with the Medical Corps, was a Lieutenant Colonel, and organized the 25th Evacuation Hospital unit in the South Pacific, where he served from 1942 until 1945. After the war, he returned to Chicago, but, being unfamiliar with new techniques, studied for

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The opinions expressed herein are those of the author and not of the U. S. Army.



Willis J. Potts

three months in Philadelphia, Baltimore, and Boston.

Potts began his career at Children's Memorial Hospital and Northwestern University Medical School where he was chief of surgery at Children's and professor of surgery at Northwestern. He held the position of surgeon in chief from 1946-1960, after which time he continued for two years doing surgery and research until his partial retirement in 1962. He worked on for two more years until complete retirement in 1964. He was emeritus professor of surgery until his death in 1968.

Potts wrote 125 scientific papers and two books—*The Surgeon and The Child* in 1959, and *Your Wonderful Baby* in 1966.

Potts was a frequent guest on television and radio programs to discuss pediatrics or surgery, and wrote a syndicated column, "The Doctor and Your Child." He was president of the Chicago Surgical Society, Chicago Heart Association, and the Institute of Medicine of Chicago, and was chairman of the surgical section of the American Academy of Pediatrics. Potts was a member of many other local, national,

and international societies. He was the recipient of many awards including: The Gold Medal of the American Medical Association, 1951; Distinguished Service Award of the University of Chicago Medical School, 1953; One Hundred Outstanding Chicagoans Citation, Loyola University, 1957; Modern Medicine Award for Distinguished Achievement, 1959; Chicagoan of the Year in Medicine Award of the Chicago Junior Association of Commerce, 1960; Distinguished Service Award of the University of Chicago, 1961; William Edward Ladd Medal of the American Academy of Pediatrics, 1962; City of Hope Award, 1962. In 1958, he was guest lecturer for the Lord Moynihan Memorial Lectures before the Association of Pediatric Surgeons in London, England.

The term "blue baby" is one parents have learned to fear and dread. Infants or children are blue, or cyanotic, due to a number of congenital heart diseases, and one of the most common causes is tetralogy of Fallot. The state of this dread malady was summed up by Dr. Potts in *Your Wonderful Baby*:

Before 1945 nothing could be done to help these unhappy children and most died during infancy or early childhood. In 1945 and 1946 operations were devised to relieve these oxygen-starved children by shunting blood from the artery to an arm or directly from the aorta to the lungs. These procedures were called "shunt operations." By means of these two methods of increasing blood flow to the lungs, thousands of children were given a new lease on life.

What Dr. Potts modestly fails to mention was that one of the two operations was "his."

The story began in 1945, when Blalock and Tausig, at Johns Hopkins, introduced a new surgical procedure for the relief of cyanosis in certain conditions, particularly for pulmonary stenosis or pulmonary atresia. Their operation consisted of anastomosing the subclavian artery or innominate artery, branches of the aorta, to either the right or left pulmonary artery to increase blood flow to the lungs. Sacrifice of the subclavian artery caused no circulatory problems to the arm, but the use of the innominate entailed the hazard of inadequate blood supply to the brain. So, this subclavian artery-pulmonary artery anastomosis became a wonderful tool for blue babies and is known as the Blalock-Taussig shunt, after Alfred Blalock, the surgeon, and Helen B. Taussig, the cardiologist.

However, this shunt did not work in young infants for their arteries were too small. Thus, if a child could survive long enough to have "good anatomy," this operation could be done.

What about some other larger artery? The possibility of making a direct anastomosis from the aorta to the pulmonary artery had been considered. Gross and Hufnagel, and Blalock and Park had concluded

from animal experiments that clamping the aorta completely for any considerable length of time results in paralysis of the hind legs due to no blood reaching the spinal cord. Thus, this operation, considered Dr. Potts and colleagues, "could be performed safely only if a substantial amount of blood is flowing through the aorta during the procedure." To attain this goal, Dr. Potts and his colleague Sidney Smith, a surgeon at Children's, designed a new type of clamp which became known as the Potts clamp. The two flanges of this clamp would encircle the aorta and when closed, pinch off a small portion of the aorta which would be large enough for the anastomosis while most of the aorta would lie in the hollow of the clamp and rest against it. And, since each pulsation of the enclosed aorta would be transmitted to the back of the clamp with the same force as that which acted against the occluded part of the aorta, there would be no tendency for the clamp to slip off. It was unnecessary to tighten the clamp beyond simple occlusion and when closed, it would reduce the lumen of the aorta to approximately one-half its size. There were other instruments which they developed or designed for this new operation.

Their experimental work was done on 30 dogs and, as Dr. Potts stated, "This operation could not have been performed successfully on the human without preliminary work on animals." None of the animals showed any of the possible complications of postoperative paralysis of the hind legs.

The first aorto-pulmonary anastomosis was done on Diane Schnell of Waukesha, Wisconsin, whose story is told by Dr. Potts:

D.S., a girl born December 10, 1944, weighing six pounds and ten ounces appeared to progress normally until she reached the age of three months. At that time, the mother observed that the baby became blue around the lips during her feeding and seemed quite limp at the conclusion of her meal. The cyanosis increased gradually in intensity, was particularly noticeable after feeding, crying, or fretting and eventually was observed even when the infant was at rest. Dyspnea became evident as time went on. Finally her condition became so poor that feeding was a serious problem. If she were fed a little too much or took her food too rapidly she became extremely cyanotic and limp, her eyes became fixed, and she lapsed into unconsciousness. On two occasions the mother thought the child was dead. The entire household was organized with the single thought of contributing to her comfort. Her three year old brother was kept from her room, and neighboring children were not allowed to play in the house.

Though the child had sat up at six months, she had never walked or stood alone. She had gained slowly in weight.

She was first seen by us on September 9, 1946 at the age of twenty-one months. Her weight at that time was eighteen pounds, four and one-half ounces. She was intensely cyanotic. The fingers were clubbed. Examination of the heart revealed a harsh systolic murmur

along the left sternal margin. The roentgenogram did not show enlargement of the heart. The heart appeared to sit high on the diaphragm and the apex was blunt and rounded. There was a concavity in the region of the pulmonary cone. The aorta could be seen in its normal position. Fluoroscopic examination failed to show pulsations in the pulmonary arteries. The electrocardiogram showed axis deviation to the right. The red blood cell count was 10,310,000 per cubic millimeter; the hemoglobin level was 18.6 grams. Because of the patient's critical condition, oxygen saturation studies of the arterial blood were omitted. We believed that she presented the typical picture of a severe case of the tetralogy of Fallot.

We must look briefly at the Schnells. Andrew Schnell, the father, was a businessman in his early thirties; Mrs. Schnell was warm and outgoing. They had heard at a bridge game that two doctors at Children's Memorial Hospital were developing an operation for the "smallest and frailest of blue babies." They came to Chicago and met Gibson, Potts, and Smith. Potts examined the child, and during the examination the little girl fainted and the doctors urgently demanded oxygen, but Mrs. Schnell told them this was an everyday happening—five or six times a day, in fact—and that Diane would recover. Potts remarked, "It was the only occasion in my whole medical experience when the mother of a desperately sick child reassured *me*." The Schnells were then informed by Potts about the operation. When they were told it had been done only on dogs, the Schnells were somewhat hesitant, but Mrs. Schnell told Potts, "The only other answer we've had from medical science is to take Diane home and make her life as happy as possible, because it's going to be a short one." So, this was the only hope for their child, and they asked Potts to operate.

The operation was performed on Friday, September 13, 1946. A special anesthetist whom Potts had known in the South Pacific, Dr. William O. McQuiston, was brought in for the operation.

Since this operation is so important to the history of pediatrics, further details will be recounted here:

Cyclopropane anesthesia with a high concentration of oxygen was given by the closed method with a snugly fitting face mask. The child's color improved greatly at the beginning of anesthesia and remained good throughout the operation.

The left pleural cavity was entered posteriorly through the third interspace. The incision was too high. Adequate exposure was not obtained until the fourth, fifth, and sixth ribs were cut along the erector spinae muscles. The pulmonary artery was identified and exposed without difficulty. Small tortuous, dilated veins lying on the pleura over the aorta were tied and cut. On lifting the aorta from its bed, we observed an unusual number of small arteries, at least a dozen, arising from that small portion of the aorta where the clamp was to be applied. Most of them were intercostal arteries, and the rest presumably were vessels which had dilated in response to a demand for collat-

eral circulation to the lung. Isolating, ligating and cutting these vessels was the most tedious and time-consuming part of the operation.

Since the pulmonary artery lay in the same place as the aorta, the incision in it was made parallel with its longitudinal axis. The actual anastomosis was performed without difficulty and required twenty-three minutes. When the clamp was removed, a palpable thrill could be felt in the anastomotic vessel. The chest was closed.

The operation began at 9:00 AM and as the child was wheeled out of the operating room, it was noon. Two of those three hours had been spent on the dozen small arteries that had to be ligated and cut. The expected 30-minute operation had become a long one.

After the operation, Dr. Potts remarked, "The most striking change was in her color and in her general behavior. She took her food without difficulty; when disturbed by her doctors, she cried for several minutes without turning blue, and in the intervening time, she was happy and playful." The child left the hospital on October 2, 1946, 19 days after the operation.

We must return to the story of the Schnells. After the operation, the Schnells' family doctor, Dr. Bernard J. Werra, told Potts that he had been given instructions from the family that if Diane died on the table, Potts was to finish the operation to give him the experience that might help other children.

Immediately after the operation, the Schnells saw the child and were amazed that she was pink. Today, Diane lives in the East and is in good health. In fact, she has been in exceptional health. She swims, dances, bicycles, leads a normal life, and at 14 years of age, she pedaled her bicycle 15 miles to see her grandmother. Her school nickname? "Dynamite."

In the paper presenting this case and others operated upon with this procedure, Potts concludes:

Only because we were backed by the fundamental principles set forth by Blalock and Taussig for the surgical relief of anoxemia in certain types of congenital heart disease did we have the courage to attempt this new operation. The operation is not a simple one. In attempting this new procedure it seemed only fair to choose those patients whose condition was such that without aid their future was hopeless.

This was indeed a giant step forward in pediatrics. In these days of heart transplant and other "fancy" achievements, we must be always mindful that in 1946, things were quite different. The first operation on the heart for congenital heart defects was by Gross in 1938, when he closed a patent ductus arteriosus. Next came Crafoord and Gross, working independently in 1945, who resected the constriction of coarctation of the aorta. Then came Bla-

lock and Taussig in 1945, and Potts in 1946. There was no extracorporeal circulation (first in 1955) and no open heart surgery. There was not even hypothermia. These were the days of infancy of cardiac surgery, and these early surgeons who braved the unknown cannot receive enough praise.

We should also include the others who worked with Dr. Potts in this adventure: Dr. Sidney Smith, surgeon, and Dr. Stanley Gibson, cardiologist. This operation became known as the Potts-Smith, or Potts operation, and has been done on thousands of children with cyanotic congenital heart disease.

With the advent of the "pump" (extracorporeal circulation) and newer technical surgical advances, better methods may be used on these children. Tetralogy of Fallot can be totally corrected by open heart surgery. However, this complete correction cannot be done in infants, and the Potts and Blalock operations are still necessary in a number of cases. In other defects, the Potts operation still remains the operation of choice.

Hopefully, in the future, we can abandon both of these shunt operations (Potts and Blalock) and replace them with total correction as cardiac surgery moves into adulthood. In the words of Dr. Potts:

Those who have been instrumental in developing the shunt operations and infundibulectomy have been accused of being biased in their favor. It has always been true that a father loves and favors his own child even though the child is definitely retarded. In self defense, and in defense of Smith, Blalock, Taussig, and Brock, I am sure I may say that we are not grieving as the incomplete operations for tetralogy of Fallot are being laid aside for an operation which will cure and be relatively safe. As future surgeons pass the markers of these operations all we ask is that they say a few kind words.

The development of the Potts operation was Dr. Potts' greatest achievement, but far from his only great achievement. Part of his research involved further work pertaining to his operation. It was a problem to construct the proper-sized opening between the aorta and the pulmonary artery. And even if that were done, would the opening get larger or smaller as the child grew? Potts and Riker studied the growth of the Potts anastomosis in pigs and found that limited growth of an aorto-pulmonary anastomosis can occur. This growth is desirable when a small infant is operated upon. Such an infant can tolerate a shunt with very limited anastomotic opening, but when the child is several years older, such an opening would not be adequate. However, the growth of the opening may be too large for the size of the child and result in heart failure. These findings prompted Dr. Potts to invent another "gadget," a plastic restraining band to attach to the opening to keep it from spreading.

Dr. Potts' surgical tools did not just prove useful in pediatric surgery. The Potts clamp was widely used to save arms and legs of wounded in the Korean War. Some physicians, in fact, believed the clamp to be a greater contribution than the Potts operation. Surgeons in Korea found the clamp enabled them to stop the flow of blood in a severed vessel quickly and completely, which permitted them to repair the defect with transplants or by anastomosis of the vessel ends. Unlike some other clamps, the Potts clamp would not "fly off" under the throbbing pressure in the vessel and allow hemorrhage.

Chesly Manly, reporter for the *Chicago Tribune*, wrote an article on Potts in 1960. In that article he describes Dr. Potts:

Dr. Potts is an impressive figure in a surgeon's uniform, trim and erect, six feet two and one-half inches tall, weight 135 pounds, a live model for his little homilies on the evils of gluttonous eating. He has blue eyes and blond, grayish hair, which he wears closely cropped, and affects a small mustache of the same color.

He has large hands and long fingers, a characteristic of artists. Surgery is an art as well as a science, but it is a marvel that such big hands could perform such amazingly intricate and delicate suturing on the heart of a child.

Dr. Potts championed many causes—one of these was the use of animals in medical research. Dr. Potts was the author of what might be considered *the* dog story, "Caesar Speaks," published in 1950. This was the story of the dog on whom the first Potts anastomosis was performed. He points out that the life of a dog well treated in research laboratories is a much better life than to die on the street or be killed in gas chambers. Caesar was well treated, lived for years at Children's Memorial Hospital, was taken to medical meetings, and played with by children in the hospital.

A plaque hangs in the Children's Memorial Hospital which says:

To
Caesar—Dog Hero
Who
Served in the Development
of the Blue Baby Operation
Children's Memorial Hospital
For Distinguished Service to Humanity

National Society for
Medical Research

Yet, Dr. Potts was plagued with more than his share of crackpot letters. He told the press:

I have received many anonymous letters from people who are opposed to animal experimentation. They have condemned me as a dog torturer and called me unprintable names. Only one of these letters was signed with name and address.

Perhaps if it had been one of their children who had to have the operation in order to live, they would feel much different.

Few others were ever critical of Dr. Potts. In 1955, Dr. Potts, on a trip to Europe, stopped by to see a former patient—an 11-year-old boy who had been "given up for dead eight years before." The physicians had told the parents of Davie Collins that he could not live. The parents were told by a friend that an operation had been performed in Chicago, in the United States, on a similar case. They had seen the report in the *Glasgow*, Scotland paper. Thus, the parents found out about the operation. They had no money, but wrote to Dr. Potts who offered to operate free. The *Glasgow Bulletin* raised the fund for the trip. In 1955, Davie was a healthy child, and when Potts stopped off in Scotland to visit the boy, Mr. Collins told reporters:

It's a miracle—that's what we always say. I've been waiting these years for the day when I could shake the hand of the man who saved our child.

Potts, never immodest, could only reply:

I remember when Davie was in Chicago. All the nurses wanted to kiss him. He was such a sweet youngster.

This picture was repeated many times with a different child and different grateful parents. One man brought his son from Yugoslavia, knowing that the best doctors in his country could not do anything for his child. He arrived in the United States with only a few cents in his pocket and able to speak only Pottsa, Pottsa. He was finally directed to Chicago, where Dr. Potts operated without charge and went on television to get money to pay for all the child's expenses.

But, Dr. Potts' life was not without unhappy moments. In 1948, he called a special news conference at the Children's Memorial Hospital to announce some personal news. He wearily began:

Thanks a lot for coming, boys. I need your help. Two things have come to a head at the same time.

First, my son disappeared June 2 from the University of Rochester. He was in the third year of a pre-medical course and had been working too hard.

Now I have to go to the hospital myself this afternoon. They're going to perform a gall bladder operation on me Saturday. I've been putting it off for as

long as I can because I wanted my boy with me. Now I can't put it off any longer.

We spend millions chasing criminals. I suppose, though, that trying to find a boy worth saving isn't news.

This sort of publicity is horrible for me, but I don't care. I'm ready to do anything to get him back.

Robert Eugene Potts, 21, married, with two children, had disappeared leaving a note which read, "I'm leaving. I'm going to New York City and then California." Potts had been to New York City looking for his son but without success. He was found about a week later in Texas, where he had joined the army. "I was tired and fed up with it all," young Potts remarked. Dr. Potts was grateful to the news media for their work.

In 1964, Dr. Potts retired completely from Children's Memorial Hospital and moved to Florida. He was now 69 years old.

"If you've never heard a mockingbird sing," Potts said, "it's worth while going South for that alone. I'm completely content watching the birds with their long, pert tails, flipping up and down, as they imitate the songs of the others."

His fame as a surgeon, however, did not get left behind in Chicago. There is one story Dr. Potts told.

At a bridge party, some women asked him, "Are you the doctor I've read about in the papers?"

Dr. Potts conceded that he was and added, "But that's all past history."

The woman answered, "I guess that's right. I bid one spade."

One day after retirement, Potts had a very peculiar moment:

All of a sudden, it occurred to me that I didn't have to go to the hospital this morning to worry about a child who had an unexplained fever following an operation, a baby who was vomiting, or a child who was going into heart failure. I was completely at ease just watching the birds. Call such an attitude one of escape, if you wish, but I am content to have trained younger men to take my place.

Dr. Potts felt he was ready for retirement:

It's a good thing for anyone who has acquired a special skill of some kind to adjust his bifocals from time to time and carefully observe the unsuspected ability of the coming generation.

It has long been my opinion that no surgeon should operate after he is seventy. Of course, some surgeons do excellent work until they are seventy-five. Some should stop at sixty-five and a few never should have started at all.

The surgeon not only has to have a quick agile mind capable of making instantaneous, faultless decisions under stress and strain but also a steady hand to deal with unexpected emergencies arising on the operating table.

To operate on a child and to have some tragic misfortune follow because of a moment of slowing of the mental processes would forever change the song of a mockingbird to a dirge.

We old fellows have had our fling; now let the young men take over. They will be mighty willing to do so.

Potts did not regret his retirement but did have to admit:

Sure I miss the children, their bright guileless faces and their friendly trust, but since this time must come for everyone to hang up his white coat, leave his executive desk, or lay aside his tools, why not do it while the zest for living is still strong?

We are preparing a flower garden. That will be a pleasure. We love to play bridge. I play golf, not well, but vigorously, and we both love to fish.

Down here on Longboat Key, in a community of homes where people are of somewhat similar backgrounds, education, and economic status, no one is a V.I.P., and that's how it should be. Each accepts the other for what he or she is.

Dr. Potts is remembered as one of the kindest of physicians. In fact, one child on whom he operated remarked at the memorial service for Dr. Potts at Children's Memorial Hospital in 1968, that he and other children remembered Dr. Potts as "the kind man with the big hands."

His philosophy toward children is apparent:

In a philosophical sense the heart of a child is a delicate mechanism, sensitive to the slightest wounds of fear, insecurity, indifference, thoughtlessness, and misunderstanding.

The mystical heart of a child is a precious and beautiful thing. It is marred only by wounds of a thoughtless and not too intelligent world. In a physical sense, the heart is a tough organ, a marvelous mechanism that, mostly without repairs, will give valiant pumping service up to a hundred years. In an emotional sense, it is susceptible to wounds of indifference, thoughtlessness and neglect, and during episodes of illness is especially vulnerable. The heart of a child is mysteriously molded by parents, teachers, playmates, and all those with whom it comes in contact. Physicians wish during those short but violent episodes of illness to avoid wounds that leave irreparable scars. I am convinced that the heart of a child sunned by love, security and understanding will be able to withstand the storm of illness and pain.

In 1922, before he received his MD degree, Potts married Henrietta Neeken. They had two sons, Willis J., Jr. and Edward, and one daughter, Mrs. Judith Westcott. At Potts' death there were 14 grandchildren.

Many tributes were paid to Dr. Potts.

In June of 1965, Potts was honored at a dinner at the Sheraton-Blackstone Hotel. This dinner and tribute was under the chairmanship of Mrs. Jerome

Van Gorkom and was a project of the Women's Council of the Chicago Heart Association. The council was headed by Mrs. Lydon Wild. The dinner had a dual purpose: to honor Potts and to announce the establishment of the Willis J. Potts Foundation for Pediatric Cardiology, Pathology, and Surgery as an ongoing project. A substantial sum of money was raised by the Women's Council and was presented to the foundation. These initial funds went to the Congenital Heart Disease Research and Training Center of Hektoen Institute for Medical Research, which was started in 1957 by the Chicago Heart Association with Dr. Potts playing a prominent role. The center was renamed, in 1965, the Willis J. Potts Research and Training Center for Congenital Heart Disease.

The Chicago *American* reported the dinner not in the back of the paper but in a position befitting the esteem in which the city held Dr. Potts. The June 2, 1965, issue of the *American* had the entire front page devoted to Potts' beginning with one and one-half inch headlines: "Dinner Honors Dr. Willis J. Potts," with subtitle such as "Dedicated Doctor Saved Thousands."

This was not the first nor would it be the last teaching, or patient care facility, or function dedicated to Dr. Potts.

In 1965, the Willis J. Potts Children's Heart Center at Children's Memorial Hospital was dedicated. This center focuses on the diagnosis, treatment, and research of heart disease in children. It was established by Mr. and Mrs. Henry Horner Straus, of Chicago, and is headed by Dr. Milton H. Paul. A dinner was held at the Sheraton-Blackstone on November 10, 1965, in honor of Dr. Potts. Tributes were paid to Dr. Potts by Fahey Flynn, Lee Phillip, Dr. Robert E. Gross, and Peter Pilgrim, a 24-year-old River Forest businessman who was operated on 17 years before. Dr. Potts delivered his famous "The Soul of a Hospital" address at this dinner.

The first annual Willis J. Potts Seminar on the Comprehensive Care of Children was held in New York in 1965, under the auspices of the Post Graduate Medical Education Committee of the Nassau Academy of Medicine. Their bulletin announcing the series of the leaders in pediatrics on their seminar faculty stated:

If alone for having blazed the trails of modern heart surgery through the dark wilderness of yesteryear, Willis J. Potts has already achieved immortality in the

world of medical science. It is now nearly twenty years since he so brilliantly conceived and performed the first successful aortic-pulmonary anastomosis in a child, as the very dawn of a new era in pediatric surgery.

On May 5, 1968, Dr. Potts died of heart disease. At the memorial service for Dr. Potts at Children's Memorial Hospital, one of his former patients, Peter Pilgrim, now 27 years old spoke:

It seems to me that we have a second chance for life. I remember while in high school meeting the chairman of the biology department, who told me that he had a son who died from tetralogy of Fallot, the year before Dr. Potts and Dr. Gibson perfected their surgical procedure. I will never forget that time because I fully realized at that point that if it were not for Dr. Potts, I would not be here nor would any of the other children on whom he operated.

Dr. Potts was indeed one of the giants of pediatrics. To this date, even with the 20 plus years of rapid scientific and medical advancement, his procedure is the only hope for many children with cyanotic congenital heart disease; and in the past it was the only hope. Thousands owe their lives to this man.

Acknowledgments

The photograph was reproduced with permission of the Children's Memorial Hospital and Mrs. Willis J. Potts.

Mr. William Beatty and Miss G. Price allowed the use of the historical facilities at the Northwestern University Medical School Library.

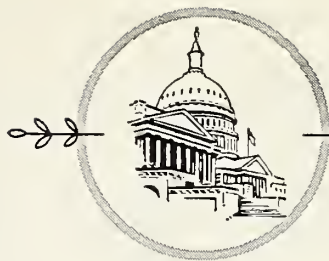
Mr. Joseph P. Greer and Mrs. Blossom Porte allowed the use of the historical information in the CMH files.

Drs. L. B. Arey, J. J. Boehm, R. B. Lawson, H. L. Moffet, H. S. Traisman, and Mr. Beatty did the reviewing and critical commenting on the manuscript.

CORRECTION

An error has been noted appearing in the November, 1973, issue in the article entitled, "Unusual Atrial Arrhythmia."

The text should read: "Sixteen of 31 patients had a PO_2 greater than 60 mm Hg, and 15 patients had significant hypoxia with a PO_2 of 60 mm Hg or less."



Socio- ECONOMICS

Home Health Care Services in DHEW Region VII

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HOME HEALTH CARE SERVICES (HHCS) are designed to assure homebound individuals of comprehensiveness and continuity in their health care through the provision of certain health services, primarily nursing care, within their homes. Properly utilized, such services should help materially in meeting the ever-increasing costs associated with hospital and institutional care. Home health care services have special significance for the elderly, who form a disproportionate share of the rural population and that which is confined to the deteriorating sections of the metropolitan communities. These services should help meet the universal problem, as defined by the President speaking before the White House Conference on Aging, when he said, "The greatest need is to help more older Americans to go on living in their own homes."

A sizable percentage of elderly people could continue living independently in their own familiar surroundings were appropriate supportive services available to them. Independent existence contributes significantly to the mental and physical well-being of the elderly.

To secure a better understanding of home health services and the meaning they hold for the people of the region, an overview of the population, its composition, the economic resources, and inpatient facilities operating therein is desirable.

* Former Executive Secretary and Health Director, Kansas State Department of Health.

† Director, Division of Health, Missouri Department of Public Health and Welfare.

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The four states comprising DHEW Region VII (Iowa, Kansas, Missouri, and Nebraska) constitute an area of 285,367 square miles, which is slightly larger than the State of Texas. The combined population totals 11,235,269, of which 1,360,676 (12.1%) are over 65 years of age. The combined total population approximates 5.5 per cent of the national population.

The economy is basically agriculture with industry concentrated in a few metropolitan centers in each state. Heavy industry is limited primarily to the St. Louis and Kansas City areas.

In spite of differences existing among the states, a remarkable degree of similarity prevails geographically, climatically, and among the people and their institutions.

Population Characteristics

Table I indicates the population of the four states according to the 1970 United States Census. The 65+ population approximates the same per cent of the total in each individual state, ranging from 11.8 (Kansas) to 12.4 (Iowa and Nebraska).

Males comprise 41.8 per cent and females 58.2 per cent of the total population over 65.

The over-75 population numbers 553,818 (40.7% of the population over 65).

Table II shows the change in population between 1960 and 1970. The percentage increase in the 65+ population was nearly double that of the total population percentage increase, and accounted for 22.0 per cent of the total increase.

Total increase came to 5.3 per cent, ranging from 2.4 per cent (Iowa) to 8.3 per cent (Missouri). Increase in the 65+ population amounted to 10.1 per

TABLE I
BASIC POPULATION CHARACTERISTICS BY STATE

State	Population Total	65+	%	Male	Female
Iowa	2,824,376	350,293	12.4	146,765	203,528
Kansas	2,249,071	266,201	11.8	111,036	155,165
Missouri	4,676,501	560,656	12.0	232,937	327,719
Nebraska	1,485,321	183,526	12.4	78,249	105,277
Total	11,235,269	1,360,676	12.1	568,987	791,689

1970 U. S. Census

cent, ranging from 6.9 per cent (Iowa) to 11.8 per cent (Nebraska).

TABLE II
CHANGE IN TOTAL AND OVER 65
POPULATION BY STATE

State	1960-1970		65+	%
	Total	%		
Iowa	+ 66,839	+2.4	+ 22,608	+ 6.9
Kansas	+ 70,460	+3.2	+ 25,932	+10.8
Missouri	+356,688	+8.3	+ 57,243	+11.4
Nebraska	+ 73,991	+5.2	+ 19,370	+11.8
Total	567,978	+5.3	125,153	+10.1

Table III sets forth the latest available figures on the average life expectancy for citizens of the four-state region.

TABLE III
LIFE EXPECTANCY BY STATE (IN YEARS)

State	Males	Females
Iowa	68.8	75.4
Kansas	69.0	75.7
Missouri	67.9	74.8
Nebraska	69.1	75.7
United States	67.6	74.2

Life Tables: 1959-61; Vol. 2-No. 17 by DHEW—U. S. Public Health Service.

Health Facility Resources

Traditionally, hospitals and adult care homes have been considered the prime, if not the sole, health facility resources, meeting the health care needs of the adult and, particularly, the elder adult population. Often these facilities have been used to meet the health needs of the elderly simply because no other

supportive services, as home nursing services, were available.

Hospitals

Table IV shows the number of licensed hospitals by state and the bed capacity. The total for the region is 595 hospitals, with a capacity of 60,694 beds, exclusive of obstetric and pediatric beds.

If the 65+ census were to average 25 per cent of capacity, then approximately 15,200 beds are utilized by the elderly. Missouri estimates that 51 per cent of patient days in outstate hospitals are occupied by the 65+ patients.

TABLE IV
LICENSED HOSPITALS BY STATES

State	1972		Census 65+ (Estimate)
	Number	Capacity*	
Iowa	146	11,858	25%
Kansas	154	11,749	25-30%
Missouri	174	26,053	20-25%
Nebraska	121	11,034	unknown
Total	595	60,694	25%

* Exclusive of obstetric and pediatric beds.

Adult Care Homes

Table V reveals a total of 1,913 licensed adult care homes with a combined capacity of 86,521 beds. If 85 per cent of the beds were occupied by the 65+ population, approximately 73,500 beds would be allocated to their use. Thus, of the combined total of 147,215 hospital-adult care home beds, approximately 88,700 (60.3%) would be in use by the elderly.

Just because a person is confined to a home for the elderly, it should not be assumed he is closer to medical care—quite the opposite may be the case.

TABLE V
LICENSED ADULT CARE HOMES BY STATE

State	1972		Census 65+ (Estimate)
	Number	Capacity	
Iowa	785	22,000	85-90%
Kansas	458	20,418	75%
Missouri	421	26,447	80-85%
Nebraska	249	17,656	85-90%
Total	1,913	86,521	85%

Home Health Care Services

The provision of health services, particularly nursing services, to people in their own homes has been a service of local health departments and visiting nurse associations in metropolitan centers for many years. The term HHC came to find common usage after enactment of Medicare and Medicaid. Under the law, HHC could be afforded homebound persons eligible under Titles XVIII and XIX if the service were established and provided on a community-wide basis, and where certified as complying with the law and regulations established by the Social Security Administration (SSA). A major requirement was that nursing be the basic service, and that one or more additional services, such as speech therapy, physical therapy, or home health aide be provided.

One of the basic reasons for encouraging establishment and provision of home health care was to combat the rising cost of medical and hospital care. Recognition was given to the fact that hospital beds were being occupied by individuals who could be better cared for at home. Home health care services would permit hospitals to utilize beds more effectively, and patients would benefit physically, psychologically, and financially in being treated at home whenever possible. Costs of hospital construc-

tion and operation today dictate that supplementary community health services be developed so that hospitals can serve those who are truly in need of hospital care.

Table VI shows the number and sponsorship of certified home health care agencies for each state. Iowa leads with 45 agencies, and Nebraska lists only 7.

Sponsorship is primarily through the local health department or combination agency. Whatever the sponsorship, effort should be made to assure that sponsorship provides the broadest possible base for utilization of service with a minimum of unnecessary duplication and overlap. Furthermore, as certified home health care agencies require deficit financing and serve all citizens of the community, it is both desirable and necessary to secure local and state tax support.

TABLE VII
COUNTIES IN WHICH CHHC AGENCIES ARE
AVAILABLE TO RESIDENTS (1972)

State	Counties Served	Counties Not Served	Total
Iowa	43	56	99
Kansas	38	67	105
Missouri	35*	79	114
Nebraska	13	80	93
Total	129	282	411
	31.4%	68.6%	100.0%

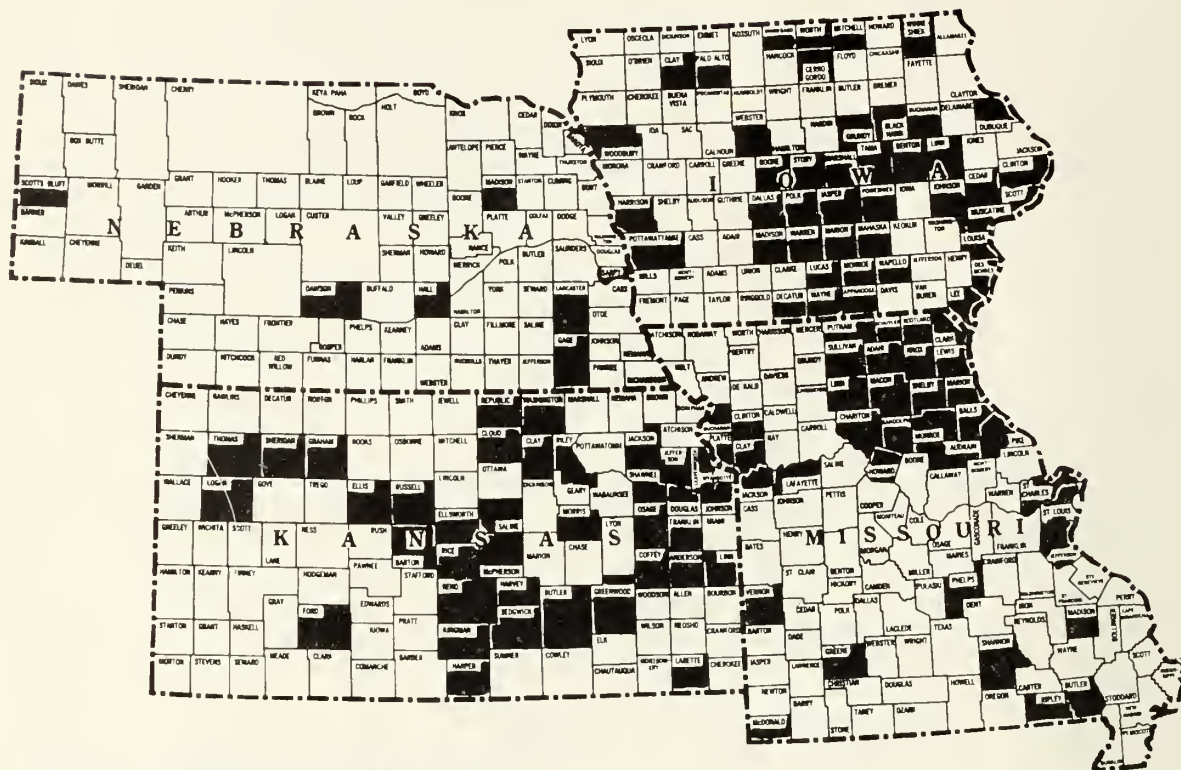
Table VII and Figure 1 reveal that Certified Home Health Care (CHHC) services are available county-wide to citizens in 129 of the 411 counties of the four-state region. Citizens of 282 counties have no county-wide CHHC services available to them. Home health care on a very limited basis is available in some of these counties, but receives no Title XVIII or XIX funding.

TABLE VI
SPONSORSHIP OF CERTIFIED HOME HEALTH CARE AGENCIES (1972)

State	Total	Health Department or Combination Agency	Visiting Nurse Association	Hospital and Other
Iowa	45	33	10	2
Kansas	35	25	2	8
Missouri	27	14	3	13
Nebraska	7	3	—	4
Total	114	75	15	27

* In addition, portions of three other counties are covered.

FIGURE 1
COUNTY WIDE CERTIFIED HOME HEALTH CARE AGENCIES
IN HEW REGION VII
1972



■ Counties with Certified Home Health Services

Figure 1

Table VIII indicates that of the 11.2 million people in the four-state area, 3.78 million (33.7%) are residents of counties without the services of a certified home health care agency. Of the 1.36 million over 65, however, 545,214 (40.1%) live in counties without such services. Thus, those for whom the service has special significance, have less access to the service than the younger population. The pattern holds true for each of the four states.

The economic resources of the counties served may be roughly measured in terms of (a) median value of owner-occupied housing units; and (b) percentage of families with incomes under \$3,000 and over \$7,000.

Table IX reveals that the median value per owner-occupied housing unit is greater in counties with CHHC services than in counties without them. In each state, the value per housing unit is significantly less in counties without certified HHC agencies, varying from -\$900 in Iowa to -\$6,810 in Missouri.

Table X indicates the financial resources as measured by family income. In counties with CHHC

TABLE IX
MEDIAN VALUE OWNER-OCCUPIED
HOUSING UNITS IN COUNTIES
WITH AND WITHOUT CHHC AGENCIES

State	Counties With Service	Counties Without Service	Difference
Iowa	\$ 8,800	\$7,900	-\$ 900
Kansas	9,750	8,500	- 1,250
Missouri	16,689	9,879	- 6,810
Nebraska	14,914	9,464	- 5,450

1970 U. S. Housing Census.

agencies, the percent of families with incomes over \$7,000 is almost double that of families with incomes under \$3,000. In counties without the service, the per cent of families with incomes under \$3,000 is two to four times greater.

Many of the families whose income is under

TABLE VIII
AVAILABILITY OF CHHCS (1972)

State	Total Population		65+ Population	
	Served	Not Served	Served	Not Served
Iowa	1,845,642	978,734 34.7%	216,682	133,611 38.1%
Kansas	1,583,344	665,727 29.6%	160,839	105,362 39.6%
Missouri	3,225,566	1,450,935 31.0%	360,100	200,556 35.8%
Nebraska	794,027	691,294 46.5%	77,841	105,685 57.6%
Total	7,448,579	3,786,690 33.7%	815,462	545,214 40.1%

\$3,000 are comprised of individuals over 65 years of age. It becomes apparent that counties with the greatest number of persons over 65 have the least financial resources with which to establish CHHC agencies.

Considerable sums are being paid by those over 65 for Part B coverage, which includes home health care service under Medicare in the four-state region. Ninety-seven per cent of the total population over 65 is enrolled. *Table XI* reveals approximate enrollment in each state, premiums paid, and amounts paid for HHC services for 1970-71.

Only a token amount is paid out for home health care. This pattern is consistent with the national picture. In FY 1971, of the total Medicare expenditures of \$7.4 billion, only \$71 million, or less than 1 per cent, went for home health care services (\$5.1 billion went to hospitals, \$1.8 to physicians).

In all four states, the state welfare program pays

TABLE XI
ENROLLMENT AND PREMIUMS UNDER
PART B OF MEDICARE, AND PAYMENTS
FOR ALL HOME HEALTH CARE SERVICES
IN DHEW REGION VII

State	Total Enrollment	Annual Premium*	Paid for Service*
Iowa	348,396	\$23.9 (CY 70)	\$0.278
Kansas	263,576	17.8 (CY 70)	0.353
Missouri	550,675	37.4 (CY 70)	2.571
Nebraska	180,789	12.2 (FY 71)	0.196
Total	1,343,436	90.3	3.398

* In millions of dollars.

the premium of approximately \$10 million annually for the welfare recipients who total over 145,000

TABLE X
COMPARISONS OF FAMILY INCOME
IN COUNTIES WITH AND WITHOUT CHHC AGENCIES

State	With Service		Without Service	
	NO. AND % OF FAMILIES Under \$3,000	Over \$7,000	NO. AND % OF FAMILIES Under \$3,000	Over \$7,000
Iowa	93,369 20.2%	152,738 33.0%	86,710 34.8%	46,728 18.8%
Kansas	69,383 18.3%	130,102 34.3%	184,880 51.9%	45,119 12.7%
Missouri	145,248 19.4%	275,050 36.8%	161,871 42.9%	59,172 15.7%
Nebraska	29,362 16.8%	61,653 35.2%	66,016 34.6%	33,095 17.3%

individuals. About one half of the welfare recipients reside in counties without the services of a certified home health care agency.

Discussion

The boards of health and health directors of the four states have placed establishment of CHHC agencies among their highest priorities. This emphasis has been given because such services are aimed at maintaining the independence and dignity of the individual, particularly the elderly and chronically ill. By stressing ambulatory and home care, the need for construction of new and additional health facilities, such as hospitals, care facilities, nursing homes and other facilities for the elderly, can be minimized. Home health care services can assist hospital utilization committees in effecting earlier discharge and more appropriate use of hospital beds. Home health care services could become a major force in controlling the ever-rising costs encountered in a disease and crisis oriented health delivery system.

Home health care, designed to place the emphasis on health, also provides a mechanism for identification of health problems requiring community action for their solution. In a unique way, CHHC services provide a window for the identification of other community health problems, and in many instances communities have responded by establishing appropriate service programs emphasizing prevention, early detection, and treatment of disease.

Inclusion of CHHC services for payment under Titles XVIII and XIX provided a strong incentive for establishment of services throughout the four-state region.

Originally, payments were forthcoming for preventive, supportive and counseling services, but as a result of restricted definition of skilled nursing care in SSA Intermediary Letter No. 395, dated August 1969, these services were no longer recognized for reimbursement. In fact, disallowances for preventive and supportive nursing care were made retroactive and this, together with long delays encountered in reimbursement, resulted in severe reduction or actual elimination of service in many communities. Physicians, too, became reluctant to make referrals to CHHC agencies, fearing that the patient would have to pay directly for cost of service.

The definition of skilled nursing care, outlined in Letter No. 395, does not recognize the value of preventive and supportive services, but rather the mere technical nursing procedures involved in acute care. The elderly, however, are more subject to chronic illness, both mental and physical. It is the preventive and supportive services which promote health and motivate the individual to keep on a regime which minimizes need for crisis care by the physician and costly institutionalization.

The curtailment of establishment and expansion of these services will perpetuate the present costly health care system oriented to disease, institutionalization, and crisis response; whereas, their expansion could work economies similar to those effected through authorization of payments for pre-hospital diagnostic studies on an outpatient basis.

Recommendations

In view of the findings of this report, the health directors of the four-state region recommend that action be taken at the federal, state, and local levels to develop adequate organizational, funding, and evaluative mechanisms in order to assure the availability of home health care services to all citizens in the four-state area, particularly for the benefit of eligibles under Title XVIII and XIX.

At the federal level, reconsideration should be given to redefinition of skilled nursing care, so that supportive and preventive nursing services are recognized as of equal value to technical nursing skills. To safeguard against abuse of nursing care, a utilization review mechanism should be instituted at the local level, comparable to utilization review activities operative in hospitals. Membership on the review committee could well represent the local board of health or official community health agency, the practicing physician, a nurse associated with the local CHHC agency, the official agency providing community health services, and the hospital administrator.

State government likewise has a stake in meeting the health needs of its citizens in an efficient and economical manner. It is recommended that the states enter actively in the health partnership by matching local budgets for community nursing services, including home health care services. The state also should provide the evaluative mechanism to assure high quality, effective, and economical services. States, through the office of state insurance director, should encourage health and accident insurers to provide coverage for services offered by CHHC agencies.

Local government should be encouraged to provide funds in reasonable proportions for establishment and maintenance of community nursing, including home health care.

Since home health care is a service of value to all citizens of the community, it should not and cannot be expected to be self-supporting. Deficit financing must be assured by governmental agencies at all levels in order to meet the needs of those who have exhausted their benefits under Medicare, Medicaid, or private insurance plans.

(Continued on page 31A)

The President's Message

Kansas has been officially notified of its designation by HEW as a single state-wide PSRO region. The corporate body of the Kansas Foundation for Medical Care (the KMS House of Delegates) will soon be asked to support an application for the Foundation to become the PSRO agent for Kansas. The Kansas Medical Society will work to modify the law and to exert its influence upon regulations that are consistent with making it possible for us to deliver high quality medical care, and we will also work for the repeal of the sections of the Social Security amendments dealing with PSRO when possible.

Therefore, regardless of what we as physicians personally feel, everyone should now participate in the Kansas Foundation for Medical Care. Every physician will be asked to participate in the Foundation's peer review program, where quality medical care is judged by other physicians within his own area. Each of the Council districts will be a local PSRO, with its obligations and functions, and each Council district will work autonomously with physicians in its own district. Each may consult with review committees of the various specialty societies as may be needed, and all may submit appeals to the Kansas Foundation for Medical Care and its committees. The Kansas Foundation for Medical Care will serve as an umbrella only. Every MD and DO in Kansas should sign a card indicating that he is willing to work as a member of the Kansas Foundation for Medical Care.

The Kansas Medical Society will work within its ability to show HEW that every patient receives the quantity and the quality of care that is consistent with the standards established by the physicians in his own area. When the PSRO regulations make the physician's ability to render



high quality care difficult or impossible, the Society will at that time cease to participate under PSRO.

Best wishes for the New Year!

Thomas F. Taylor

President



Editorial COMMENT

Sex, Everyone?

We have just finished reading a novel of Great Significance. We know it is of great significance because it was promoted by one of the major book clubs and the author is obsessed with all of the human excretory functions, especially the sexual. One can recognize the great literary achievements of the day by the fact that they demonstrate the height to which our language has risen by constant use of the four-letter words it started with. This is not a misplaced book review, but a thinly veiled device to get to the subject of sex, particularly sex education.

There is the inescapable feeling that we are going through a convulsive reaction in which the general fascination with sexual verbiage and function constitutes a sort of collective adolescence. We seem to be in a state of cultural puberty in which we cast off the restrictions of an earlier day by saying the naughty words out loud and in public, presuming that this denotes sexual expertise and sophistication.

The physician is chastised because he has not made his office a fountainhead of sexual knowledge and he dares not suggest that some degree of inhibition might be a good thing. The enlightened point with horror to the fact that medical school curricula contained little or nothing of sex education. True enough. In our day, the idea seemed to be that there was enough other material to cover in four years, that the student was presumed to bring a certain amount of sexual knowledge with him, and he could get the rest on South State Street on Saturday night. In other words, sex was an elective.

It is interesting to note, too, that in those clouded days, most of the students were unmarried. Today, the opposite prevails. It seems unfair that we uninitiated should have been left to wander in search of our sexual identities, while today's accelerated student gets a didactic course—presumably to supplement the laboratory course at home. At least, they should emerge with a well developed capability to counsel the few forlorn sexual misfits who are unable to assimilate the plethora of sexual information and the alleged freedoms confronting them today.

No small amount of publicity has been accorded an admittedly limited study of physicians in which—as we recall—some 7 per cent of those queried admitted to sexual relations with their patients. (This referred to male physicians and female patients but the possibility of other combinations is noted.) This produces some sense of discomfort in us, having spent some 25 years in the high-risk area of obstetrics and gynecology without once being overtly propositioned—or propositioning. We are not at all sure we want to be identified with the 93 per cent who are either so unattractive as to be at no risk, or so imbued with professional objectivity as not to note the vibrant, pregnant (sic) opportunities at hand. At any rate, the young physician, already armed with greater sexual wisdom, now has the support of precedence.

One manifestation of this sexual liberation is the vigor with which women are proclaiming the freedom to become acquainted with their bodies. It hadn't occurred to us that anyone was denying them this privilege, but they see something sinister in the fact that most physicians, gynecologists in particular, are male. Ergo, it is the male's fault that they have been kept in the closet of modesty from which they are now emerging. We see no harm in their becoming acquainted with themselves by whatever combination of mirrors and gymnastics they need. But it should prove an exercise of limited interest since they should discover, as does the male physician, that the view is limited, the decor stereotyped, and the procedure somewhat boring unless some interesting pathology comes along occasionally.

At any rate, the cry is up. We are going to study sex and talk about it and congratulate ourselves on our liberality, our tolerance, our informed and healthy acceptance of all forms and quantities of sexual endeavor and emerge relaxed, fulfilled as in some sort of post-orgastic dream state.

It is not our purpose to put down sex education, but to point out that the value of sex education is to promote a proper perspective of living and it must

be developed and presented in such a manner as to counter the public misconception of the process. The public is highly aware of sex but has, for the most part, a superficial, inappropriate concept with misunderstanding and false emphasis. Studies that provide dependable, objective evidence about sexual function are as valid as any other chemical or behavioral research. But just as the whole patient must be considered in the management of his disease, the whole body, personal or societal, physical or mental, must be considered in the assignment of the role of sex. The sexual relationship is part of the biological fundament and a conditioner of behavior throughout the ontogenetic struggle toward civilization. If the mind and body of man are not as perfect as they ought to be, they are still the best we have, and a prime purpose of education is to prevent their misuse. Our complaint against the purveyors of sex in the various stalls of the market place is that they abuse the intellect and divert it from the process of refinement, which should be the compelling effort.

Sex education will not eliminate all of the sexual problems. The rise of venereal disease in an age when it is conquerable is no less than tragic. The role of sex education is doubtful. It is hard to believe that anyone in a position of exposure to venereal disease does not have awareness of the threat—at least as much as they would derive from a sex education course. The problem, of course, is the biologic urge which forces the exposure in spite of the awareness, and the personal and social values that promote the basically destructive contact. It will require an educational process of values more fundamental than the sexual to achieve the necessary control.

The emergence of sexual deviations from the area of excessive social rejection or criminality is a positive step not because the goal is to accept, as healthy and desirable, a life style contrary to normal physiologic and psychologic principles, but because it will permit a more objective study and evaluation, so that the causative factors can be neutralized. The value of sex education lies not so much with the subjects, for it will rarely correct what is already out of focus, but that it will provide healthier, informed sexual values which will work toward elimination of the distorting factors.

A considerable segment of society is aghast at the freely distributed implements of pornography, but these are not so much the cause of debased sexual appetites as the effect. Sexual crimes are reprehensible not only because of their effect upon the victim but also because they represent a tragic misdirection of human potential that our current capabilities can rarely salvage. Sex education can lead the public to a better understanding of these problems but won't

eliminate them unless the public assimilates enough to change the underlying human relationships.

The promiscuity of the day (the amateur variety) is proclaimed by the participants as an expression of freedom. (We do not admit that serial promiscuity is different from the parallel type any more than a solitary drinker is less an alcoholic than his publicly drunken brother.) However, promiscuity is not freedom but entrapment in a web of many strands. Marriage is a basically sexual concept and the decline of its status to a licensed but transient living arrangement is leading more people to the erroneous belief that it is healthier to seek its benefits without commitment to civil or social responsibility. They fail to see that the deficiency is not in the institution but in the participants. Their attitude suggests that if we can simply eliminate the dismal divorce statistics, we shall solve the whole problem of the human relationship.

This brings us to the crux of the problem. The need is for education in living, in understanding the rights and responsibilities of the individuals—male or female, parent or child, personal or social. Self-respect is essential to good mental health and the necessary precursor of respect for others. Unless an educational process establishes this concept, it will at least fail or misdirect us toward false values.

Informed sex education is a significant and specialized phase of the process and deserves our reasoned and respectful application, but if the more fundamental concepts of the human relationship are not established, it will be no more successful than the efforts—or lack of effort—of the past.—D.E.G.

Journal on Microfilm

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Vox Dox

Vox Dox Editor:

The following comments are prompted by Congressman Roy's DECEMBER D. C. Line appearing in the December issue of *The JOURNAL*.

Congressman Roy states that "There is no better time than now to pass national health legislation." He supports this statement by saying that patients are dissatisfied with the cost of medical care and that present laws are soon to expire. He claims that "More and more people are saying to their elected representatives, 'Do something.'"

Now this is simply not so. In the December 15 issue of *Newsweek*, there is a comprehensive report on the recently completed Harris Poll of public opinion which was commissioned by a Senate committee. This poll shows several interesting things. First, physicians are held in higher esteem by the American public than any other identifiable group. I do not have to point out that they are looked upon with approval by a percentage far higher than that of congressmen, senators, or executives of the federal government. Second, this poll reports that *inflation* is the number one issue concerning the American public and has been mentioned by 74 per cent of those responding. Third, medical care was seen as a problem by only 3 per cent of those polled and was near the bottom of the list of public concern. What clearer and more absolute refutation of Congressman Roy's claim could there be?

A further analysis of these results might be worth while. They are perfectly consistent. That is, if you are not concerned about medical care, that implies you are satisfied with it, and you will tend to hold in high esteem those people who provide it for you. Furthermore, it can be accurately stated that anyone who wishes to change a system that has such a high public rating had better be damned sure that they are right in what they do. We cannot have that assurance when we hear our Congressman claiming that there is a public demand for change when clear evidence exists that there is not such a demand. Since he is clearly misinterpreting the demand, might he not be concurrently planning the wrong changes?

Physicians are now faced with a new federal program, PSRO, which is beginning to look worse all the time. Who can feel comfortable about further legislation when we are confronted with such ill-conceived and unneeded laws as this? *The Wall Street Journal*, in an editorial comment December 6, 1973, states that the PSRO legislation was attached as a rider onto last fall's big Social Security bill and "somehow rode through with almost no public at-

tention. The House did not even hold public hearings on the PSRO." Now we have a law on the books which will apply to 50 million patients and 10 million hospital admissions annually at a cost which is sure to be astronomical. Did not Congressman Roy hear what the polls said about the public being concerned with inflation? Does he not agree that one of the greatest causes of inflation is excessive federal spending? How can he presume to suggest that what we need is more national health legislation?

It would be wrong for physicians to suppose that Congressman Roy is the only force stirring up unneeded health legislation in the federal government. There are powerful, entrenched bureaucrats in HEW and politicians of both parties who feel that they can glean public favor by interfering in the medical care mechanism, and the Harris Poll results will probably not stop them from continued meddling. Physicians should not suppose that any one political party has their best interests at heart. It is clear that the PSRO law is mainly the work of Senator Wallace Bennett, sometimes described as a "Conservative Republican." The Nixon Administration has recently been reported to be working on a national health insurance plan of some type. Since no need can be shown to exist (except perhaps for some form of catastrophic insurance), any bill the administration proposes can be expected to be worse than the present system by a considerable margin. The same can be said for every piece of legislation currently pending.

The federal government clearly increases costs every time it interferes. The Hill-Burton Bill is a good example. It was helpful for a time in providing needed hospital beds. But the program was not allowed to die when the need was filled, and consequently a surplus of hospital beds exists at present adding to the cost of medical care. We are soon to be treated to a flock of HMOs, courtesy of Congressman Roy, which are going to be created at the taxpayer's expense. It is unlikely that they will be allowed to die if they cannot become self-supporting, which means that they will be another permanent drain on the public purse. And on and on it goes.

It is time for all physicians to draw the line at further federal interference in a system of medical care which is satisfactory to at least 97 per cent of the American public. Physicians should stop supporting legislators who foolishly promote unnecessary and costly legislation.

JAMES H. RANSOM, M.D.
Medical Plaza Bldg.
Topeka, Kansas 66604



Personalities—IN KANSAS MEDICINE

Robert H. Kelly, Augusta, discussed selected cases of "Legal Medicine, Confessions of a Crime Freak," in a lecture-meeting open to physicians, area nurses, and laboratory personnel.

"Abortion From the Standpoint of Cause, Prevention and Effects," was the topic of discussion at a public lecture presented by Lloyd W. Hatton, Salina.

A. S. Reece, Gardner, has announced his retirement from the medical practice of 40 years.

Supplementing the nationally telecast program on Inborn Genetic Defects, David E. Gray, Topeka, explained the program as it is functioning in Kansas.

Cyril V. Black, Pratt, presented a program dealing with areas of recognition and treatment of gynecological problems, birth control, and child abuse. The lecture was given in connection with the community health nurses educational plan.

Donald D. Goering, Salina, delivered a talk on the medical aspects and treatment of drug users and abusers, at a church gathering.

"Psychology of Obesity" was the part of UFM Doctors' Series presented by Robert Stein, Manhattan.

Featured as the speaker for the scientific meeting of the Crawford County Medical Society recently was William E. Larsen, Kansas City.

Lee S. Fent, Newton, narrated two films on cancer at a school gathering.

Discussing diabetes on Channel 13, in recognition of the National Diabetes Week, was William Nice, Topeka.

Jack W. Graves, Wichita, was elected to the Board of Governors, American College of Surgeons, for a three-year term.

A discussion of upper respiratory infections and their treatment was presented by Charlotte L. Seago, Liberal, to the hospital nursing personnel.

Herbert Fransen, Newton, presented a paper entitled "Hyperthyroidism," at the regional meeting of the American College of Surgeons.

Governor Robert Docking announced appointments of Russell A. Nelson, Wichita, and Donald C. Greaves, Kansas City, to the Advisory Commission on Institutional Management and Community Mental Health Programs.

James W. Wiggs, Great Bend, delivered a lecture on hyperactivity in children, at a meeting of the Barton County Community Junior College.

The Menninger Foundation announced the appointment of Peter Hartocollis, Topeka, as director of C. F. Menninger Memorial Hospital. H. S. Sehdev, Topeka, was appointed director of the hospital's children's division.

The D. C. Line

Editor's Note: The Editorial Board feels that the Kansas Medical Society would profit by maintaining contact with Representative Bill Roy, both as a source and interpreter of political activities on the national medical front. Accordingly, we are initiating a monthly column written by Dr. Roy. It is hoped that this will not only provide the service intended, but invite a response of readership either through the JOURNAL or to Dr. Roy directly.

In this column last month, I indicated that I felt that now is a good time to pass national health legislation. I discussed at that time two reasons why this is true: (1) increasing costs, which generate a political climate for health legislation; and (2) existence of a reservoir of good will among physicians and other health providers which is not yet polarized.

A third good reason for the consideration of health care legislation now is that the overwhelming majority of the members of Congress at this time do not want to interject massive federal programs into the health care delivery system. Most members of Congress are aware and somewhat intimidated by the size and complexity of the health care delivery system, and most present members of Congress date back far enough to have been burnt by the erroneous actuarial estimates for Medicaid and Medicare. I find that my colleagues in Congress, as a whole, would very much prefer that the medical profession and other health professionals solve most health care delivery problems or alternatively that we, the health professionals, propose and support the minimal legislation that will work to meet today's health care problems. However, most members are aware that something must be done, reasonably soon.

The Administration in power has to be considered a fourth major factor in determining whether this is a propitious time to pass major health care legislation. It may sound strange for me, a Democrat and a partisan for good health care legislation, to state that I can find at least two things about this Administration that lead me to believe that definitive health legislation can and should be passed now. One is that I happen to agree generally with their last proposal—and probably their next proposal for national health insurance.

A second reason is that this Administration does not want to spend a great number of federal dollars in health care. Neither do I, but rest assured that I would spend a number of dollars differently than HEW is now spending them. As a "for example," I would not have withheld Comprehensive Health

Planning or National Health Service Corps' money.

I have one great foreboding about successfully passing good health legislation during the remaining three years of this Administration. That is, that in order to gain Administration support, the legislation may be so modified and curtailed, that it is doomed to failure. And bad legislation is like bad surgery, it makes the next operation harder. There has been health legislation designed to fail—Kerr-Mills and Regional Medical Programs are examples—and I don't cotton to passing that kind of legislation.

The fact remains that I agree with this Administration on most of its health care proposals. The difference may be that I would like to see the proposals become law—not merely instruments of political propaganda.

There is a final, very important fact of life for which neither this Administration nor the Congress is alone responsible. That is that there is not now money for costly new legislative programs in the federal budgets. Any new programs will necessarily be funded by new taxes or by the discontinuation of present programs and the use of money now being used for those programs. There is a third alternative, and that is to borrow additional money. But I find no support for this in the Congress at the present time.

It is projected that there will be little new money for new programs before 1977. This dictates that we are in a period of calm as far as medical care programs requiring major expenditures are concerned.

In sum, I believe that now is the time to pass health care legislation—now, when health care delivery problems are apparent but have not reached crisis proportions for most Americans—now, when there is a spirit of good will and cooperation among health professions—now, when the Congress is not yet forced by public clamor to act and while Congress looks to the health care professionals and industry for help and advice—now, when there is an Administration in power with solid, workable proposals (whatever their intent)—now when there is so little money that we, the people, the Congress and the Administration, cannot rationally get into the business of either buying or directly providing health care services.

In future months, I will outline the legislation that can do the job.—W.R.R.



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This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms referable to it are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

symptom complex to Valium[®] (diazepam)

Precautions: If combined with psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants may potentiate action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
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Nutley, N.J. 07110

Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)

The JOURNAL of the KANSAS MEDICAL SOCIETY

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Congestive Heart Failure

A New Iatrogenic Epidemic, Propranolol (Inderal) Induced

ALAN D. FORKER, M.D.,* *Wichita, and*
CHARLES S. WILSON, M.D.,** *Lincoln, Nebraska*

THE INCREASING number of patients with congestive heart failure precipitated or aggravated by therapy with propranolol (Inderal) is alarming. In a private consultative cardiology practice, the authors have recently seen one or two patients per week with this complication. It is apparent to the authors that pharmaceutical advertising has encouraged the use of this drug in clinical situations in which it is not the drug of choice, and there has not been sufficient emphasis placed on its depressant effect upon myocardial function.

A detailed review of the pharmacologic effects of propranolol will not be attempted here, since extensive reviews of this subject are available in the medical literature.^{1,2} It will suffice for the purpose of this discussion to point out four major actions of the drug on the heart: (1) the slowing of the sinus rate (negative chronotropic effect); (2) the slowed conduction through the atrioventricular node (negative dromotropic effect); (3) the suppression of certain ectopic arrhythmias (antiarrhythmic effect); and (4) the depression of myocardial function (negative inotropic effect).

The first three of these effects constitute potential rational basis for propranolol therapy in cardiac arrhythmias, although the same effects can in themselves be the cause of cardiac complications, such as marked sinus bradycardia or atrioventricular block. The negative in-

otropic effect has potential clinical usefulness, as in reduction of myocardial oxygen demand in patients with angina pectoris due to coronary occlusive disease, and in the reduction of left ventricular outflow obstruction in patients with idiopathic hypertrophic subaortic stenosis. However, congestive heart failure due to the myocardial depressant effect is the nemesis of the physician

An attempt to refocus attention on the potentially serious complication of propranolol (Inderal) therapy.

employing this drug. The purpose of this report is to refocus attention on this potentially serious complication of propranolol therapy. The following cases encountered recently are presented as illustrative examples.

Case One (*Atrial fibrillation, recent onset*)

A 79-year-old male had the onset of atrial fibrillation with the ventricular rate of 120-130 beats per minute one month previously. He was treated with propranolol, 40 mg four times daily, without any digitalis therapy. He then developed progressive fatigue, shortness of breath, and cardiac auscultation revealed a prominent third sound gallop. Chest x-ray showed bilateral pleural effusions. Propranolol was discontinued, and following digitalization, the patient experienced prompt improvement and became asymptomatic.

* From the Cardiac Laboratory, Wesley Medical Center.

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Comment

Digitalis remains the drug of choice for controlling the ventricular rate in atrial fibrillation. Digitalis reduces ventricular rate by slowing conduction through the atrioventricular node, plus it has a positive inotropic effect which improves left ventricular function. Propranolol offers no significant advantage over digitalis in slowing ventricular rate, it costs more, and it depresses left ventricular function. There is rarely any indication to use propranolol alone in the treatment of atrial fibrillation. However, in the rare case in which the ventricular rate of atrial fibrillation is not controlled adequately after full digitalization, the use of propranolol in combination with digitalis may help control the ventricular rate. Occasionally, when a patient has had known recent onset of atrial fibrillation, which does not convert with digitalis and quinidine, propranolol may help convert atrial fibrillation to normal sinus rhythm by use of the three drugs in combination.³ When such "triple therapy" is used and conversion is not achieved in one or two weeks, the quinidine and propranolol should be discontinued, since they have no further value. Electrical cardioversion should then be considered.

Case Two (Atrial fibrillation, chronic)

A 53-year-old white male was hospitalized because of mild to moderate congestive heart failure. Atrial fibrillation was first detected eight months previously, and since that time had been treated with both digoxin and propranolol, 10 mg four times daily. Cardiac examination revealed evidence of moderate mitral valve insufficiency, plus moderate chronic obstructive lung disease, the latter confirmed by pulmonary function tests. Chest x-ray showed moderate cardiac enlargement with a right pleural effusion. After discontinuing propranolol and starting diuretics, the patient diuresed 5.4 kg (12 lb) and was markedly improved. Thereafter, he remained in a stable functional Class II status. Mitral valve surgery was not advised for the immediate future.

Comment

This patient was actually referred for consideration of mitral valve replacement. After stopping the use of propranolol, the patient was changed from a functional Class III to functional Class II. He thus was no longer in need of immediate mitral valve surgery. Three contraindications to propranolol therapy were present in this patient: (1) significant mitral valve insufficiency; (2) significant obstructive lung disease; (3) chronic atrial fibrillation of eight months duration. Whenever significant valvular heart disease is present, propranolol

should be used with great reluctance. The depression of ventricular function caused by propranolol is generally not acceptable, because left ventricular overload has already been created by the valvular heart disease.

Since propranolol has the opposite effect on the bronchi from isoproterenol, it actually may exacerbate bronchial constriction or bronchospasm. Propranolol is, therefore, contraindicated in the presence of obstructive lung disease, chronic bronchitis, and asthma. Finally, there was no reason to continue the propranolol therapy in this patient after a two-week trial of the drug.

Case Three (Atrial flutter)

A 65-year-old white male was admitted to the hospital because of moderate shortness of breath. Electrocardiogram showed atrial flutter with a ventricular rate of 150 beats per minute. Chest x-ray showed moderate cardiac enlargement. The patient was treated with propranolol, 2.0 mg intravenously. Soon after this, the patient developed progressive severe congestive heart failure and shock. The patient was then treated aggressively for these complications with doses of digoxin, intravenous furosemide and, finally, corticosteroids because of persistent hypotension and oliguria. Gradually, over the next 12 hours, he showed progressive improvement with a significant diuresis. The patient was converted to the normal sinus rhythm by electrical cardioversion.

Comment

Electrical cardioversion is the treatment of choice for atrial flutter, especially if the patient experiences a fast ventricular rate and is in a hemodynamic difficulty. This patient was probably in a mild left ventricular failure prior to being given intravenous propranolol. Propranolol should be used reluctantly in any patient with roentgenographic evidence of cardiomegaly. If propranolol is used, the patient must be observed very carefully for manifestations of congestive heart failure.

Case Four (Sinus tachycardia)

A 50-year-old male was admitted with an extensive, acute anterior wall myocardial infarction. Serum glutamic oxaloacetic transaminase (SGOT) rose to over 200 units, and the electrocardiogram showed the new development of a complete right bundle-branch block. Because a sinus tachycardia with a ventricular rate of 120 beats per minute was present, therapy was started with propranolol, 10 mg four times daily. At the time of the initial cardiac consultation, a soft ventricular gallop sound was audible, which disappeared when the propranolol therapy was discontinued. The sinus tachycardia

gradually subsided over the next week without further therapy.

Comment

There was no clinical indication for treating this sinus tachycardia in this man. Following an extensive acute myocardial infarction, left ventricular contractility and stroke volume are usually depressed. In this setting, sinus tachycardia represents a compensatory response in an attempt to maintain cardiac output. Since propranolol further depresses myocardial contractility, it is contraindicated. If therapy is necessary, it should consist of digitalis or diuretic.

Case Five (*Premature ventricular contractions*)

A 70-year-old male was hospitalized because of progressive shortness of breath and anasarca. Chest x-ray revealed marked cardiac enlargement with the cardiac silhouette reaching the left chest wall. A regimen of digitalis and diuretics was prescribed. However, because of frequent premature ventricular contractions, he was also given propranolol, 10 mg four times daily. He then developed rapid progression of severe left ventricular failure and, despite all medical therapy, he died several days later. The autopsy showed extensive coronary occlusive disease with old myocardial infarction.

Comment

The premature ventricular contractions in this man were probably secondary to the severe left ventricular failure. In this situation, improvement of the left ventricular failure with digitalis and diuretics will generally clear up the ectopic activity. Whenever a severe depression of left ventricular function exists, the use of propranolol is clearly contraindicated. In fact, even other less potent myocardial depressants (such as quinidine and procaine amide) should be used with caution. In this situation, lidocaine and diphenylhydantoin should be tried first, because they have a lesser (negative) inotropic effect. The latter drug may especially be useful if digitalis toxicity is suspected.

The above case histories have described the inappropriate use of propranolol for treating cardiac arrhythmias. The pharmaceutical advertisements and detail men emphasize the use of propranolol in the treatment of cardiac arrhythmias. However, as shown in a recent review article concerning propranolol, the efficacy of this drug compared with other available therapy in the treatment of many arrhythmias has not been established. "Until propranolol is rigorously compared with other therapy

in properly designed trials, no dogmatic conclusion should be drawn" regarding its value.⁴

Another area in which propranolol has been increasingly used over the past several years is in the patient with severe angina pectoris. Earlier reports had suggested synergism with the combination of sublingual isosorbide dinitrate (Isordil) and oral propranolol.⁵ In this situation, the negative chronotropic and inotropic effects of propranolol are expected as the mode of therapeutic action. By depressing the patient's heart rate and myocardial contractility, myocardial oxygen consumption will be decreased; therefore, the amount of myocardial blood flow will, hopefully, meet the myocardial oxygen demands. Again, the patient must be watched very closely in order to anticipate and properly treat a severe depression of left ventricular function, as demonstrated in the following two cases.

Case Six (*Chronic angina pectoris with recent progression*)

A 65-year-old male had a long history of stable exertional angina, plus a prior myocardial infarction several years previously. Recently, he had developed progression of the angina, but it still occurred only upon exertion. This was treated with oral isosorbide dinitrate and propranolol, 10 mg four times daily. Within a week following initiation of propranolol therapy, the patient developed nocturnal angina for the first time and was referred for consideration of saphenous vein graft surgery. He had never been instructed in the use of sublingual nitrites. Propranolol was discontinued, and therapy was instituted with bed rest, digoxin, and sublingual nitroglycerin. He stabilized and eventually returned to a reasonable level of activity on nitrite therapy alone, without the need for coronary bypass surgery.

Comment

For angina pectoris, sublingual nitroglycerin remains the drug of choice. Since orally ingested nitrites have been shown to be deactivated by the liver before release into the systemic circulation, they are generally less effective.⁶ In the absence of evidence for congestive heart failure, propranolol may be of value in the treatment of angina which has failed to respond to the use of sublingual nitrites alone. If propranolol is used, the physician must be alert to subtle manifestations of early congestive heart failure, since failure will actually aggravate myocardial ischemia. Although nocturnal angina is usually associated with severe coronary occlusive disease, it is also commonly a manifestation of mild congestive heart failure and may respond to digitalis therapy. Therefore, when nocturnal angina appears in a patient

receiving propranolol, the physician should discontinue propranolol and try digitalis before considering coronary artery surgery.

Case Seven (*Angina pectoris, early postinfarction*)

A 41-year-old white female had an extensive anterior wall myocardial infarction two months previously. She was digitalized, but continued to complain of nocturnal dyspnea. Five weeks postinfarction, she developed angina pectoris at rest. Because of severe disability due to the angina, she was started on propranolol, 10 mg four times daily. Her physician advised her not to use sublingual nitroglycerin for her postinfarction angina. She presented to us with continuing angina at rest, and clinical findings for moderate congestive heart failure. The electrocardiogram showed persistent ST segment elevation in the anterior precordial leads, suggesting a left ventricular aneurysm. Coronary arteriography and left ventriculography revealed a left ventricular aneurysm of moderate size, elevated left ventricular end diastolic pressure to 33 mm Hg, and total occlusion of the left anterior descending coronary artery. The peripheral vessels were not suitable for saphenous vein bypass grafting. After discontinuing the propranolol, angina subsided, and the findings of congestive heart failure cleared. Left ventricular aneurysmectomy was not considered necessary at this time.

Comment

If any myocardial complications develop postmyocardial infarction, especially left ventricular failure, cardiac enlargement or left ventricular aneurysm, mitral valve insufficiency (*i.e.*, papillary muscle dysfunction), ruptured ventricular septum, hypotension or significant atrioventricular block, propranolol should be used with great reluctance.

Many physicians are reluctant to use nitroglycerin

early in the course after an acute myocardial infarction because of the possibility of inducing hypotension.⁷ However, a recent hemodynamic study regarding the use of sublingual nitroglycerin following acute myocardial infarction showed minimal reduction in mean arterial pressure.⁸ In any event, sublingual nitrites are certainly advisable for treatment of angina pectoris which persists or recurs in the immediate postinfarction period.

Summary

It is hoped this discussion will encourage physicians to "think twice" before using propranolol in the treatment of cardiac arrhythmias, remembering that it, generally, is not the drug of first choice, and it carries a significant risk of precipitating left ventricular failure. In the treatment of angina pectoris, the physician is urged to employ a more frequent and thorough education of the patient in the use of sublingual nitroglycerin. If propranolol is tried, frequent re-evaluation is critical, to detect the early signs of left ventricular dysfunction.

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"HEALTH CARE—WHO?"

The second biennial health care conference jointly sponsored by the Ellis County Medical-Dental Association, Ft. Hays State College, and the Kansas Regional Medical Program will be held all day Saturday, April 20, 1974. The title of the conference to be held on the Ft. Hays State College campus will be "Health Care—Who?" Topics covered include: "Who Wants It?," "Who Provides It?," "Who Improves It?," "Who Pays for It?," "Who Modifies It?," and "Who Will Defend the Care System?" Senator Robert Dole, the keynote speaker, will deliver the midday address. Other speakers of national reputation will be on the program. Announcements with further details will be mailed shortly to all physicians in Kansas and nearby states.

Protection by Pregnancy

Zollinger-Ellison Syndrome

CARL N. MENTGEN, M.D., DONALD D. MOELLER, M.D. and
ARTHUR P. KLOTZ, M.D., F.A.C.P., Kansas City, Kansas

ZOLLINGER AND ELLISON¹ reported, in 1955, two patients with fulminating ulcer diathesis associated with non-beta cell tumors of the pancreas. They postulated at that time that a humoral factor was elaborated from the pancreatic tumor which was responsible for gastric hypersecretion and unrelenting ulcer disease. Five years later, Gregory² demonstrated the presence of a gastrin-like substance in a pancreatic tumor removed from a patient with the Z-E syndrome. Since the original report, more than 325 publications and more than 350 cases have been collected.³

Many aspects of this disease are now more generally appreciated. Zollinger⁴ has stated that the Z-E syndrome should be suspected in women who develop severe ulcer symptoms after the protective influence of pregnancy has been removed. One case of the Z-E syndrome presenting in the post-partum period has been described,⁵ however, no case of acute pancreatitis as the presenting complaint has been reported.

Case Report

The patient was a 29-year-old white, married female who had had a normal pregnancy and delivery with the exception of moderately severe heartburn occurring during the last trimester. Shortly after delivery, she developed severe epigastric pain, with nausea and vomiting. By the third day, this had progressed to mid-back pain and diarrhea. The patient was dismissed but returned in one week because of continuous severe abdominal pain and vomiting. This persisted over the next eight weeks and was accompanied by marked weight loss. At the time of readmission, a serum amylase was recorded as 1,200 Somogyi units. Subsequent serum amylases and lipases were all elevated. An upper gastrointestinal x-ray at her readmission was reported as compatible with duodenal ulcer, and treatment for this was instituted.

Because of failure of the patient to improve on an ulcer regimen, and because of the persistent elevated amylases, she was transferred to the University of Kansas Medical Center, in November 1968. The only significant past history is that of an elevated blood glucose five years prior to admission. The patient was treated for this for

a short time with hypoglycemic agents and had no subsequent elevated blood glucose.

Physical findings at her readmission were within normal limits with the exception of moderate epigastric

Pregnancy may play a part of a protective mechanism in the development of symptomatology, in this case of pancreatitis.

tenderness. Laboratory findings were within normal limits except as listed in *Table I*.

Gastroscopy revealed giant rugal folds. A serum gastrin was 5,000 ng.⁶ Upper gastrointestinal x-ray examination revealed prominent gastric folds with an undeformed duodenal bulb. The second portion of the duodenum was spastic, with an irregular mucosal pattern and mucosal edema (*Figure 1*). A diagnosis of Z-E syndrome was made and operation was advised.

At operation, a primary pancreatic tumor measuring 4 to 5 cm was found situated at the junction of the head and body of the pancreas. The tail of the pancreas was edematous and indurated from subacute pancreatitis. Histologic examination of a liver metastasis was compatible with a non-beta islet cell tumor of the pancreas (*Figure 2*). The liver was enlarged with multiple nodu-

12 HR. GASTRIC ANALYSIS		ELECTROLYTES		
		Na	K	Cl
TOTAL VOLUME	3400 c.c.	140	3.1	95
TOTAL FREE HCl	333.01 mEq	133	2.6	91
TOTAL FREE ACID	380.80 mEq	141	3	86
		135	2.6	88
SOMOGYI AMYLASE	111-134	AUGMENTED HISTAMINE GASTRIC ANALYSIS		
SERUM LIPASE	0.8-2.4	BASAL ACID OUTPUT	54.730 mEq/HR	
24 HR. URINARY AMYLASE	14045-16602	MAX. TOTAL ACID OUTPUT	58.200 mEq/HR	

Table I. Pre-operative laboratory values recorded during hospitalization.



Figure 1. Upper GI x-ray showing large gastric folds, with mucosal edema of the small bowel.

lar metastases (Figure 3). The stomach was large with massive rugal hypertrophy. A total gastrectomy was performed. The pancreatic tumor was not removed, in hope that it would regress following gastrectomy.⁷

The patient remained asymptomatic for the following ten months, although urinary amylases and serum gastrin

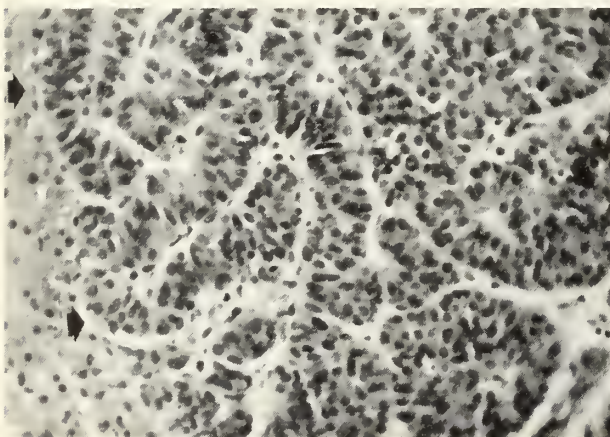


Figure 2. Liver biopsy showing nest of malignant cells (see arrows) with a characteristic ribbon pattern and small areas of glandular pattern. Compressed liver tissue is seen at left side of figure (H & E Stain $\times 400$).



Figure 3. Operative photograph showing multiple liver metastases (see arrows).

levels remained elevated. She then developed clinical signs of recurrent pancreatitis, which required hospitalization but subsided spontaneously. Fourteen months after operation, the patient was again evaluated because of weakness and marked weight loss. At this time, the patient had hyperadrenalcorticism, and bilateral adrenalectomy was performed. The patient expired postoperatively due to pulmonary abscess, sepsis, and severe cachexia. Additional pathologic diagnoses at autopsy were those of bilateral adrenal cortical hyperplasia, hyperplasia of the pituitary gland, chronic pancreatitis, and pulmonary infarction due to thromboembolism.

Discussion

Waddell *et al.*⁵ reported the onset of symptoms of the Z-E syndrome following delivery in one of their patients. The clinical course and gastric analyses were compatible with the diagnosis of the Z-E syndrome. However, there was no pathologic confirmation of tumor

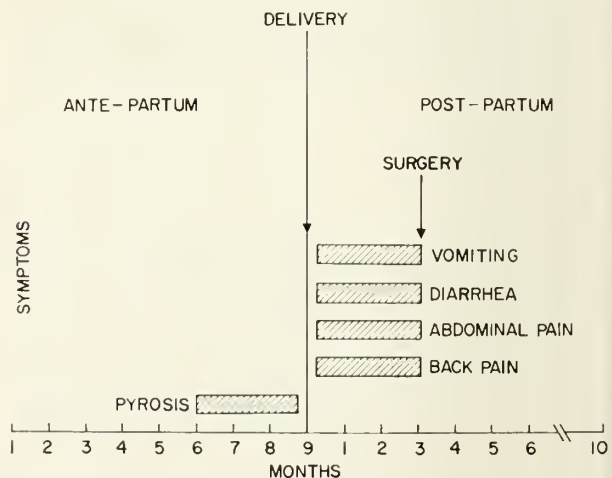


Figure 4. Schematic outline of duration of symptoms.

or hyperplasia in the pancreas. The "protective influence" of pregnancy on acid-peptic disease has been alluded to, but other authors have presented conflicting data.⁸ Sircus⁹ has speculated that an "endocrine imbalance," such as seen in pregnancy occasionally, may be the triggering mechanism for gastrinomas.

Although our patient had pyrosis in the third trimester, this is a common symptom of pregnancy, perhaps related to increased intra-abdominal pressure and relaxation of the cardioesophageal sphincter. The striking clinical feature in this case was the abrupt onset of disabling symptoms within three days after delivery (*Figure 4*). The predominant symptoms were those of abdominal pain, back pain, and diarrhea. The elevated amylase levels of serum and urine were from pancreatitis confirmed at laparotomy. To our knowledge, acute pancreatitis has not been previously described in association with the Z-E syndrome. Zollinger *et al.*¹⁰ reported four cases of chronic pancreatitis in their large series. The mechanism of pancreatitis cannot be definitely stated, but may be due to ductal obstruction by the tumor associated with massive release of secretin and pancreozymin from the duodenal mucosa secondary to acid stimulation. Since gastrin has been found to be a potent pancreatic secretagogue,¹¹ the high circulating levels undoubtedly contributed to endogenous secretion of pancreatic juice.

It is possible that the patient's acute symptoms were only fortuitously related to her recent delivery. However, because of the temporal relationship, a protective mechanism of pregnancy may have played a part in the development of her symptomatology.

Summary

A 29-year-old female developed acute symptoms of back and abdominal pain, vomiting, and diarrhea three days after an uncomplicated delivery. There was clinical and laboratory evidence of pancreatitis. Subsequently, a clinical diagnosis of Zollinger-Ellison syndrome was made. This was confirmed at laparotomy with the finding of a metastatic non-beta cell tumor of the pancreas. The temporal relationship of delivery followed by acute symptoms suggests a protective factor of pregnancy against the effects of high levels of circulating gastrin.

Acknowledgments

Operative photographs were supplied by Alan Thal, M.D., Department of Surgery, University of Kansas School of Medicine.

Serum gastrin levels were performed by James E. McGuigan, M.D., University of Florida School of Medicine, Gainesville, Florida.

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CORRECTION

Robert E. Fast, M.D., author of "Sydenham's Chorea—Current Concepts and Literature Review," which appeared in the December 1973 issue of THE JOURNAL, informs the readers that Lester L. Lansky, M.D., KUMC Department of Pediatrics, collaborated in the preparation of this paper.

ARTHUR E. HERTZLER MEMORIAL LECTURES

All physicians are invited to attend the Fifth Annual Arthur E. Hertzler Memorial Lectures to be held on February 13, 1974, in the Halstead High School Auditorium, Halstead.

Registration fee for the lecture series is \$4.00, which includes a noon luncheon. The lectures will begin at 10:00 A.M.

The topic of this year's lectures is Gastroenterology. Speakers will include Ernest Urban, M.D., D. Cramer Reed, M.D., Norton J. Greenberger, M.D. and Raymond Read, M.D.

Microneurosurgery

The Use of the Operating Binocular Microscope

JOHN B. RUNNELS, M.D., *Topeka*

A NEUROSURGEON who uses the operating microscope is a microneurosurgeon, no more than that. No special school or diploma is given to certify a neurological surgical speciality such as stereotaxic neurosurgery or microneurosurgery.

Ideally, it is a matter of working in the laboratory with a microscope with cadaver specimens or with animals until one has developed competent facility and skill under magnification. However, a number of neurosurgeons, probably the majority, have learned to use the microscope in the operating room with no prior laboratory experience; the main disadvantage is that the initial lack of familiarity with magnification and depth of field makes for slower surgery.

Courses and workshops on microneurosurgery have been given with increasing frequency in neurosurgical centers over the world. Many operating rooms across this nation have acquired microscopes for neurosurgical as well as ophthalmological, otological, and plastic surgical use. There is no doubt that the popularity of the operating microscope is increasing, especially among the more recently trained neurosurgeons.

The reasons for this popularity are at least threefold: (1) the microscope provides focal lighting of the operating field which is far superior to conventional lighting; (2) anatomic structures in the operative field are magnified and clear, allowing safer dissection with more delicate instruments; and (3) primary operations can be done upon small vascular and neural structures, hitherto impossible. Also, the surgical microscope is a potentially excellent teaching device with the utilization of accessory equipment such as observer tubes, still and motion picture cameras, and closed circuit television.

History

The surgical microscope was first used by otologists over 50 years ago, for tympanic and labyrinthine surgery.¹ Small peripheral vascular anastomoses were performed in 1960, not by neurosurgeons, as well as coronary endarterectomies and ureteral reconstructions. During the early 1960s, microneurosurgery techniques expanded to include middle cerebral artery endarterectomy, peripheral nerve reconstruction, extracranial nerve anastomoses, and brain and spinal cord tumor surgery.

Considerable impetus was indirectly provided the field of microneurosurgery by the repeatedly and consistently successful removals of acoustic tumors by translabyrinthine

The advantages and applications of microneurosurgical technique, with the aid of the operating binocular microscope, are described.

rinthine and subtemporal approaches, particularly by the House group of otologists in Los Angeles. Further experimentation with the surgical microscope brought it into use in performance of spinal and extracranial rhizotomies, cordotomies, and myelotomies.

A number of prominent neurosurgeons have enlisted the aid of the surgical microscope in the surgery of intracranial aneurysms and arteriovenous malformations of the brain and spinal cord. The most impressive statistics have come from Zurich, Switzerland, where Yasargil² has compiled over 250 microsurgical operations for cerebral aneurysms since 1967. These included an overall mortality rate of 5 per cent; 1.6 per cent mortality for clinical Grades 1, 2, and 3; with no deaths in Grades 1 and 2. These results are most gratifying when one remembers that less than 20 years ago, several prominent and excellent neurosurgeons were saying that the results of aneurysm surgery were so poor that in most cases intracranial surgery should not be performed.

However, it is well to maintain perspective, and it must be pointed out that good aneurysm surgery is done elsewhere with different methods of magnification, most notably by Drake³ in London, Ontario. Drake uses magnifying loupes and does not use the operating microscope. His statistics are also quite impressive, and proper emphasis must be made upon the basic skill and judgement of the individual neurosurgeon.

Applications

The frequency of use of the surgical microscope will vary with the neurosurgical practice. In general, the smaller the lesion and the more difficult the access to

the lesion, the greater the indication for use of the microscope.

Certain kinds of brain tumor surgery are markedly enhanced by the microsurgical approach. Pituitary surgery is safer with the microscope, whether done by transfrontal approach or through the sphenoid sinus. Greater protection is afforded the carotid arteries and optic nerves when they can be adequately seen and avoided. Complete and safer removal of craniopharyngiomas is possible. Intracanalicular and small extracanalicular acoustic tumors are far more amenable to safe complete removal, with preservation of associated cranial nerves, through use of the operating microscope. Opinions vary widely among neurosurgeons as to the efficacy of the microscope in resection of medium sized and large acoustic tumors, for the facial nerve is frequently so thinned and splayed over the larger tumors that nerve function is lost despite microsurgical technique.

The surgical microscope is most helpful in removal of some intraventricular tumors, particularly colloid cysts and fourth ventricular tumors.

Tumors of the lower cranial nerves, such as schwannomas, neurofibromas, and meningiomas necessitate careful dissection, minimal retraction, and surgery must be performed in a very small field, often with very difficult exposure. The microscope aids significantly in the removal of these tumors.

It has been satisfactorily proven that the surgical microscope has a distinct and important place in intracranial aneurysm surgery. In the general neurosurgical practice it is likely that this will be the most common application of the microscope. The aneurysm clip can be better placed; perforating tiny vessels can be avoided; optic and oculomotor nerves are preserved; brain retraction can be minimized; and, with practice, the microscope should actually increase the speed of the procedure.

A few neurosurgeons, most notably Yasargil,² have performed intracranial microvascular anastomoses, but the indications and timing of these procedures have, too frequently, rendered the performance of them a surgical exercise, of good technical result, to this date of questionable value. It should be obvious, as Yasargil has emphasized, that these operations are not to be done without a considerable backlog of laboratory experience.

Various ablative neurosurgical procedures are facilitated by and are safer with the operating microscope. Trigeminal rhizotomies, whether through the posterior fossa or by the subtemporal approach, are much easier, and differential section can be done with more accuracy. Troublesome vessels can be avoided by using the microscope in a standard anterolateral cordotomy, as is also true with rhizotomies.

It has been well shown that surgery upon the spinal cord itself is generally more satisfactory and gratifying under magnification, whether in the removal of a spinal angioma, an epidermoid or dermoid cyst, an extramedullary neurofibroma, schwannoma, meningioma, or an intramedullary glioma.

Some neurosurgeons have used the operating microscope in lumbar and cervical disc surgery, both from the anterior and posterior approaches.

Technique

Adherence must be made to several fundamental principles in microneurosurgery. Sterile technique and draping procedures are paramount. The microscope, improperly draped, is a potential source of contamination, and in neurosurgery this may mean meningitis or cerebral or spinal abscess, dire and life-threatening complications.

More than any other field of surgery, the geographic margin of error in the neurosurgical operative field is often extremely narrow. Accordingly, the accurate, gentle but firm, placement of the microneurosurgical instruments in the surgeon's hand and avoidance of unnecessary movement is essential.

The microscope must be kept in working order with easy access to replacement bulbs and lenses, as well as careful maintenance of clean lens surfaces. Individual eye adjustments must be made by the surgeon and his assistant prior to draping.

Aneurysm clips must be clearly and serially arranged, with the appropriate clip-applier, and the surgeon and nurse must be able to communicate accurately and succinctly as to the type of clip, the direction of the blades of the clip, and the direction of passage of the clip applier into the surgeon's hand. Ideally, the surgeon should not have to take his eyes from the operative field to choose and arrange the aneurysm clip.

The bipolar cautery is an essential adjunct to effective microneurosurgery. Careful attention must be paid by the nurse and assistant that the cautery cord and the microsuction tubing are kept out of the field, and particularly do not entangle the brain retractors, microscope parts, or the surgeon's hand. The circulating nurse must be constantly attentive to the position of the cautery footplate and the microscope footplate, for these may be inadvertently nudged out of position by the surgeon's foot, and again, the surgeon should not have to remove his eyes from the microscope to look for the footplate.

(Continued on page 46)

Late Hemispherectomy Complications

Unilateral Hydrocephalus From Aqueductal Obstruction

ALICE W. DEWDNEY, M.D.,* *Topeka, and*
JOHN J. KEPES, M.D.,** *Kansas City, Kansas*

CEREBRAL HEMISPHERECTOMY was first applied in 1923 by Dandy, in the treatment of malignant brain tumors.¹ Krynauw,² in 1950, first reported the use of this procedure in alleviating seizures and behavior disorders in infantile hemiplegia, following which hundreds of operations were performed. White,³ in 1961, reviewed a total of 269 cases with an extensive analysis of the pathogenesis of the underlying disease, operative techniques and results, but with a followup period of only a few years. Not surprisingly, following surgery of this magnitude, a number of early postoperative complications were recorded, but only after some 15 years following Krynauw's report did some authors begin to call attention to possible late postoperative complications of hemispherectomy.⁴⁻⁶ In addition to easy vulnerability to relatively minor trauma, some of these patients developed subdural hemorrhage which led to obstructive hydrocephalus and sometimes to hemosiderosis of the central nervous system.⁷ In a most recent review of fifty cases, Wilson⁸ found the long-term morbidity rate to be as high as 38 per cent.

Recently, the authors also had the opportunity to observe the case of a young man who developed obstruction of the aqueduct and gradually increasing hydrocephalus of the remaining hemisphere which led to his demise 16 years after hemispherectomy for hemiplegia and Jacksonian seizures.

Case Report

The patient was a 19-year-old white male. He was the product of an apparently normal pregnancy and delivery, weighing 4.2 kg (8 lb. 12½ oz.) at birth. He sat alone at six months, stood at nine months, began saying a few words at ten months, and walked alone at one year. At 15 months of age he became febrile, began to vomit, and had a generalized convulsion lasting for six hours. His temperature remained elevated at 105F to 107F (40.6C-41.7C) for eight days and general twitching persisted, primarily of the left arm and leg. He remained hospi-

talized for a total of 40 days, sleeping most of the time, and a diagnosis of encephalitis was made. Following this illness, he was found to be severely retarded, became very unmanageable in his behavior, and developed a left hemiplegia and left-sided Jacksonian epilepsy which became increasingly severe despite medication. At three-and-one-half years of age, he underwent a right subtotal hemispherectomy which resulted in improved behavior and remission of the Jacksonian seizures, although myoclonic ones persisted. He had postoperative paralysis of

A case report of obstructive hydrocephalus developing in the left hemisphere six years following right-sided hemispherectomy for infantile hemiplegia.

the left arm and leg, and by nine years of age there were flexure contractures of the left extremities. At about that time, six years after his hemispherectomy, a right-sided spasticity was first noted. This was at the time of his admission to the Kansas Neurological Institute, where he remained until his death. While at this institution, he was able to move around to some extent, however, for the most part he was confined to a bed or wheelchair. He was functioning in the profound range of mental retardation (AAMD: MI-5, AB-5). Generalized

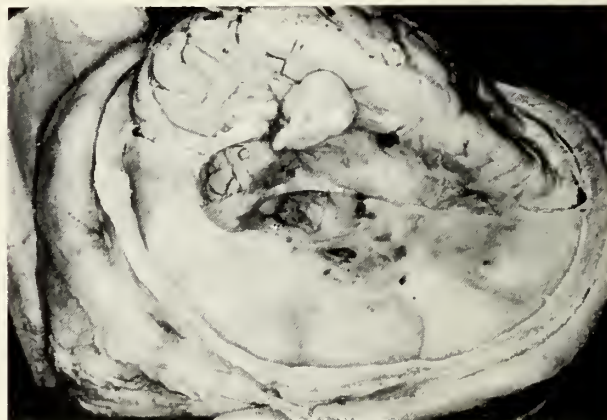


Figure 1. Gross view of the contents of the skull at autopsy.

* Staff Neurologist, Kansas Neurological Institute.

** Professor of Pathology, University of Kansas School of Medicine.

convulsive seizures continued to occur sporadically and he was maintained on Dilantin and phenobarbital, to which Mysoline was later added. EEG findings during the course of his institutionalization revealed an increasingly evident left frontal focus of a high voltage negative spike and slow wave discharge. His condition gradually declined. He suffered repeated attacks of respiratory illnesses, including several episodes of pneumonia. One week prior to his death, he developed a radicular abscess around a carious tooth, and in spite of penicillin therapy, his temperature became elevated to 102F. His condition deteriorated rapidly during the last 24 hours, and the cause of his death was thought to be fulminating bronchopneumonia.

Autopsy Findings

General autopsy revealed marked cachexia, a severe kyphoscoliosis, bilateral hemorrhagic bronchopneumonia, and an acute purulent meningitis from which *Klebsiella pneumoniae* was cultured.

Examination of the brain showed the greatest portion of the right cerebral hemisphere was surgically absent,

leaving only a small portion of the occipital pole and some of the medial wall of the lateral ventricle. The occipital cortex, too, was very shrunken. The right lateral ventricle communicated with the cavity which used to house the right hemisphere, and which was lined by pale yellow dura on its basal and lateral walls. The choroid plexus was exposed. Interestingly, no significant asymmetry of the bony cranial vault was observed (*Figure 1*). While removing the skull cap with an electric saw, the frontal horn of the left lateral ventricle was accidentally opened and the hemisphere partially collapsed. Even so, the entire left cerebral hemisphere was swollen, fluctuant, its gyri flattened and narrowed (*Figure 2*).

The left temporal lobe was so distended that the convolutional pattern of the surface became obliterated and the wall of the ventricle, which included both cortex and white matter, was reduced to a few millimeters in thickness. The arteries of the left hemisphere appeared unremarkable. The leptomeninges at the basal surface of the cerebellum and pons showed a recent appearing yellow-green exudate. The cerebellum was somewhat smaller than usual.

Coronal sectioning revealed massive dilatation of the left lateral ventricle (*Figure 3*), most severe in the temporal horn. The lateral ventricle freely communicated with the third ventricle and the latter opened into the aqueduct, the upper portion of which was patent. Sec-



Figure 2. Superior view of the brain showing partial collapse of left hemisphere.

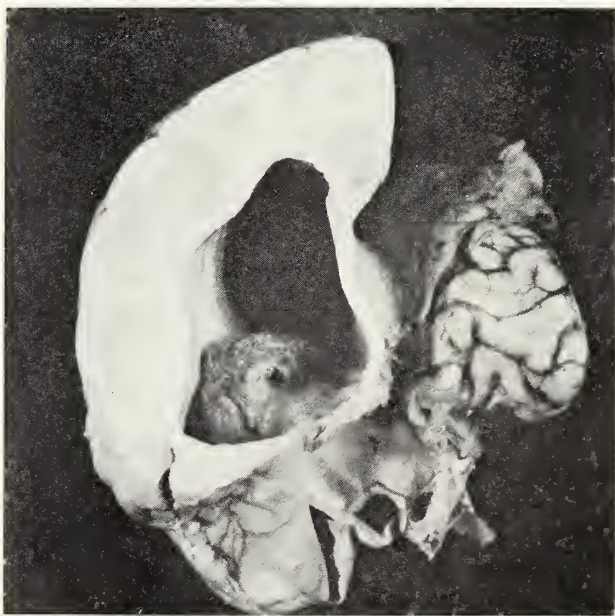


Figure 3. Coronal section through occipital area, posterior view. On the right, the small remnant of the occipital lobe is seen. On the left, the lateral ventricle shows massive dilatation, the temporal lobe is transformed into a thin-walled sac.

tioning of the brain stem, however, revealed complete occlusion of the aqueduct at the level between the pons and the midbrain. The fourth ventricle was of normal size. There was marked asymmetry on cross sections of the midbrain and pons, the right half of these structures being much smaller than the left.

Microscopic examination of the remnants of the right hemisphere showed massive replacement of the original brain substance by glial scarring. The occipital cortex contained no nerve cells, only masses of glial cells; in some areas spongy changes were noted. The choroid plexus on the right side showed fairly normal general architecture, but its epithelium contained large amounts of brown pigment granules which stained positively on iron reaction. Sections of the left hemisphere showed some loss of substance, mostly of white matter, secondary to the hydrocephalus. The cortex was relatively well preserved, except in the left temporal lobe, where it fell victim to the pressure atrophy caused by increased intraventricular pressure.

Sections of the aqueduct showed almost complete obliteration of its lumen by occlusion of glial masses originating from several areas in the walls (*Figure 4*). At a lower level, these joined together to form an obliterating mass (*Figure 5*), leaving patent only a very narrow hori-

zontal slit at the top portion of the original aqueduct. Myelin stains of the brain showed the far advanced Wallerian degeneration expected 16 years after the hemispherectomy; the right cerebral peduncle was practically missing, and the pyramidal tract in the right half of the pons and the right base of the medulla oblongata showed loss of its fibers (*Figures 6 a, b, c*).

Discussion

It is of interest that some of the early complications of hemispherectomy involved the side of the operation, *e.g.*, in two of McKissock's⁹ cases "hydrocephalus" developed on the side of the surgically absent hemisphere. This he attributed to the choroid plexus of the lateral ventricle which was left behind, and suggested extirpation to this structure.

Cabieres and co-workers¹⁰ described two cases (one with autopsy verification) of hydrocephalus in the remaining hemisphere with fatal brain stem herniation, as early as 60 days following hemispherectomy. At that time, the pathogenesis of this complication was not clear and they wondered about possible "negative pressure" on the side of the missing hemisphere being responsible for the shift.

The late complications of hemispherectomy have re-



Figure 4. Section through the upper aqueduct showing multiple foci of granular ependymitis (H. & E. $\times 60$).

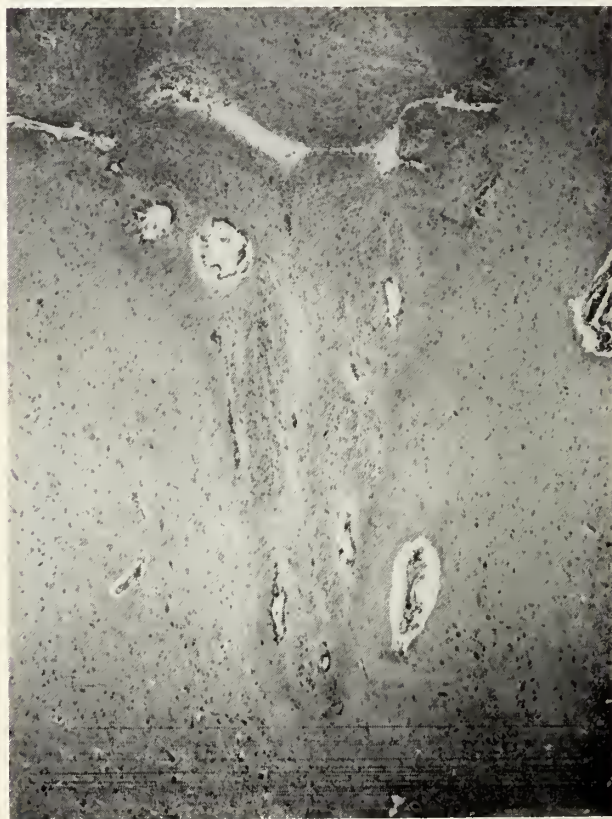


Figure 5. Midsection of aqueduct is almost completely occluded by confluent masses of gliosis (H. & E. $\times 60$).

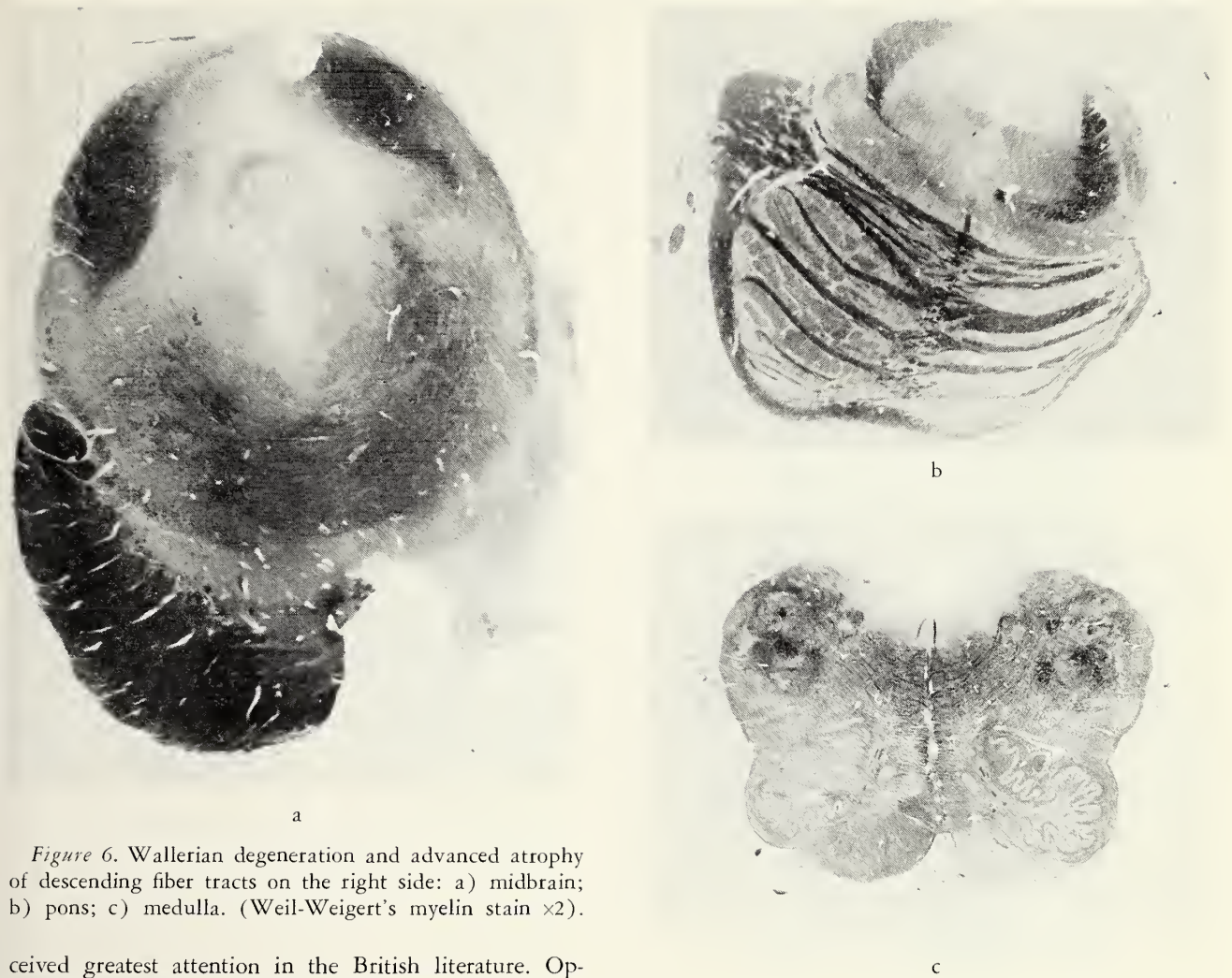


Figure 6. Wallerian degeneration and advanced atrophy of descending fiber tracts on the right side: a) midbrain; b) pons; c) medulla. (Weil-Weigert's myelin stain $\times 2$).

ceived greatest attention in the British literature. Oppenheimer⁵ and Griffith⁶ in their discussion of three patients with late complications of hemispherectomy summarized the characteristics of this syndrome as: (1) infantile hemiplegia treated in childhood by hemispherectomy; (2) a trouble-free period lasting for some years; (3) deterioration extending over several years ending in death (evidence during this period of bleeding into the cerebrospinal pathways and later of obstructive hydrocephalus); and (4) postmortem findings of superficial hemosiderosis of the central nervous system and chronic granular ependymitis. In other words, they felt that the vascular membrane which eventually comes to line the cavity previously housing the removed hemisphere gives rise to repeated hemorrhages, possibly very slight but with an accumulative effect. Subsequent hemosiderosis would act as an irritant to the walls of the cerebrospinal pathways and provoke granular ependymitis, the latter eventually leading to partial or complete obliteration of the most important bottleneck: the aqueduct, resulting in hydrocephalus of the remaining hemisphere.

With the unconventional topography of the intra-

cranial cavity following hemispherectomy, the effects of hydrocephalus are also somewhat peculiar. Thus "loculation" of the residual right ventricle or of the temporal lobe have been stressed.^{11, 12}

In our case, there was sufficient hemosiderosis in the lining of the right hemicranium to create grossly discernible yellow-brown discoloration. Much hemosiderin was seen microscopically in the epithelium of the choroid plexus on the right side as well. We were unable, however, to demonstrate residual hemosiderin or hematoidin in the wall of the aqueduct even though there was marked granular ependymitis with fusion of subependymal glial masses and severe narrowing of the iter. It is possible that over the years the initial deposits of hemosiderin have been removed from the area by macrophage action or damage to the ependyma of the aqueduct might have been caused by tissue and protein breakdown products other than hemosiderin. There was no clinical documentation in our case of repeated hemorrhages of the cerebrospinal pathways.

The authors feel it is important to remain alert to this late complication of hemispherectomy because it is a treatable condition. While ventriculo-cisternal shunting (Torkildsen's procedure) has been unsuccessful in two of Griffith's cases,⁶ ventriculo-atrial shunting apparently promises lasting success. Three of Falconer and Wilson's¹² four cases were relieved from increased intracranial pressure by successful ventriculo-atrial shunts, as was a patient of Matthew *et al.*,¹⁰ who developed contralateral loculation syndrome 11 years after hemispherectomy for Sturge-Weber disease. Wilson,⁸ who has reviewed the largest number of cases (50), suggests that successful management of late complications of hemispherectomy depends on (1) awareness of the existence of this condition; (2) removal of the source of blood breakdown products where possible; (3) shunting; and (4) minimizing coexistent leptomeningitis, *e.g.*, by steroid therapy.

Summary

A case of obstructive hydrocephalus developing in the left hemisphere six years following right-sided hemispherectomy for infantile hemiplegia is reported. Massive gliosis of the aqueduct was responsible for this complication which eventually led to the patient's demise 16 years after the hemispherectomy. The literature concerning the incidence, pathogenesis, and suggested prevention and treatment of this late complication of hemispherectomy is reviewed.

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Microneurosurgery

(Continued from page 41)

Summary

The surgical microscope has proved to be a most valuable adjunct to classical neurosurgery. Stereoscopic vision with excellent illumination and magnification of the operative field from 6 to 40 times is provided by the binocular microscope, further sophisticated by foot focus and zoom. Although the surgical microscope has been in use for 50 years, there has been neurosurgical application for it only in little more than the past 10 years. It provides accurate and safe dissection in small, often deep operative fields and, with the bipolar cautery, allows near bloodless neurosurgery.

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NEW MEMBERS

The JOURNAL takes this opportunity to welcome these new members into the Kansas Medical Society.

James F. Brymer, M.D.
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The President's Message

At this time, it occurs to me that emphasis is being placed on the concept of increased consumer input into medical decisions in the health care field. When you look at the practical side of what happens today, you see that there is a considerable amount of consumer input and, I believe, that there always has been.

The average physician comes into contact with a patient at the request of that patient. He then talks to the patient, examines him, and then indicates to the patient that he may need additional studies in terms of x-rays or laboratory procedures. He then discusses alternative modes of therapy for this patient. In all of these contacts with the patient, the patient has the alternatives of (1) not having made the original contact; (2) making a decision of whether or not to obtain the laboratory procedures; and (3) determining whether or not he will accept the type of therapy which is recommended.

We've all had experiences with patients who prefer not to have laboratory procedures done, and we've all had contact with patients who would prefer not to have a particular type of treatment program done.

In a broader sense, health care institutions have involved consumers in all types of construction proposals and funding for those facilities, and in many cases the consumer has also had input into the services which are provided by the facility.

I wonder what our patients would do, and what would happen to them, if all of the decisions were made by the consumer. I have a feeling that if the fi-



nancial aspects of the delivery of health care were excluded, we would see very little change from the pattern that we have today. I would appreciate your observations upon this.

Thomas F. Jaylor

President



Editorial COMMENT

The birth on January 1, 1974, of the newest member of the medical regulatory family has brought varied but highly vocal reaction from different branches of the clan. Some see it as the result of a quiet case of rape effected while the family chastity patrol was looking elsewhere. Others consider it a case of superfetation since it obviously was of different origin than the rest of the litter. Some admit that they are not really acquainted with the newborn but don't like the idea of another mouth to feed. Hardly any would object if it contracted a case of sudden infant death syndrome or at least severe respiratory distress. But as a matter of fact, the neonate seems to be endowed with enough vigor to require the family to give it some studied consideration before deciding to keep it or throw it out with the bath water.

The professional standards review concept has all the elements to produce as violent a brouhaha as the profession has seen for some time, and it has seen some good ones. Already the AMA has made a significant change of course. From a stated attitude of acceptance under protest with intent to get the law amended for greater palatability, it has, by action of the House of Delegates, switched over to a policy of working for repeal. We are not privy to any secret information but suspect that the first approach was promoted by the higher-ups because, being a little closer to the squeaking wheels of government, they know that there is no interest in Congress to repeal the law and felt that efforts to amend it were the only realistic approach. The House of Delegates, however, seems to have mustered enough strength against any attitude of accommodation that it swung the official verdict over to a demand for repeal.

In spite of the unlikelihood of repeal, this attitude prompts some consideration of the situation which would obtain if it were accomplished. The House of Delegates can hardly fail to realize that Congress would come back with another version of the law and—very likely, in view of almost certain irritation with physicians for scuttling the present law—one with more objectionable features than the present one. The PSRO act was hooked onto Social Security legislation as an amend-

ment, and Congress is more apt to be happy that it got through with so little attention than to give serious consideration to now getting rid of it. After all, it applies (at the moment) to cases for which federal money is paying, and we think the average member of Congress is going to think that a pretty good reason for retaining it.

But what if there were serious consideration on the part of Congress to repeal it? The House of Delegates did not indicate what it offers in place of it. This leaves two presumptions: (1) it considers no legislated control necessary and expects to rely on voluntary action of the physician to accomplish a control satisfactory to the government; or (2) it is a strategic maneuver aimed not so much at repeal as establishing a bargaining position by which amendment may be easier to accomplish. There is no doubt that many—perhaps most—physicians believe the former, but the expectation that the government will agree is at best wishful. The second has the virtue that, while physicians have little option at the moment but to prepare to comply, a reasonable counter-attack can be mounted for eliminating or controlling the more objectionable features.

Meantime, the stage is being set. Kansas has been designated a statewide PSRO and the functioning organization will be the Kansas Foundation for Medical Care. At this writing, HEW has not issued its operating guidelines, so an informed projection of this—or any other—PSRO law is perhaps impossible, but it is worth noting that every official statement or semi-official comment emanating from HEW has been characterized by one feature: the program is to be managed by physicians—moreover physicians within circumscribed areas, to permit maximum consideration of and implementation under the conditions prevailing in those areas.

Those who are fundamentally opposed to this law in fact and in concept will view these overtures as totally false. Their attitude is not without some basis in experience with government attempts and acts to regulate the practice of medicine. It represents an extreme of reaction which must be considered in any

effort by the profession to modify the situation, whether by repeal or amendment. However virtuous a stand, it evades political reality. Whatever the benefits or detriments, the government *is* into the practice of medicine as it is into every other business or professional endeavor. The lever is, of course, federal money. It is possible under the present law to elect non-participation, either individually or collectively. The result will be that the individuals so choosing will not be compensated by the government in this considerable area of medical practice but still, as things stand now, will not be exempt from the assessment of their records. The medical profession is caught in a stream that is flowing toward more and more governmental intervention. Whether this is good or bad, it is a stream with so many tributaries that no one segment of society is going to stop it.

This does not mean, however, that some control cannot be applied, and this is the case for conditional compliance and efforts toward amendment. The point of contention has been stated (with truth but some oversimplification) as the conflict between quality control and cost control. The physician contends that he has already been applying quality control, that a program of coercion will not improve but degrade his efforts, that the overall cost will be greater than any saving accomplished, that the privacy of the patient will be invaded, and therewith the traditional physician-patient relationship will be destroyed. The government contends that its primary purpose is to assure quality service to those recipients of care for whom it is financially responsible, that the cost factor is secondary but its reduction depends upon the effectiveness of quality control. It vehemently denies any desire to direct the practice of medicine, and its initial statements of policy commit it to this position. Perhaps its actions (through subsequent instructions and regulations) will totally belie this attitude (as the opponents are convinced), but it would appear that the approach HEW is taking should give the medical profession a position of some strength, both in the manner it implements the existing law, and in the production of amendments to nullify objectionable features and substitute acceptable ones.

In a way, this epitomizes the position in which the physician finds himself (as he seems to frequently these days) whenever his traditional role of health care provider to the individual is translated into a social role of providing health care for the public with its numerous

and diverse segments. He is imbued with the concept of individual service, and quality control is implied in his dedication to that service. Cost is secondary and, while he may make a sincere effort to consider the patient's capacity to pay for the service, he will, at the moment of decision, elect to provide the service he deems necessary and worry about the cost (including his own remuneration) later. But the government subsidizes medical care not for an individual but for a certain number of units categorized by the arrangement of the holes punched in cards. The common denominator of these units is the total cost of providing the service. It has a built-in advantage in any contention with the medical profession because its connection with the physician is the financial bridge. The government can put its case to the public as an effort to assure availability and quality while the physician, a latter-day Horatio on the financial bridge, appears to be basing his resistance on a self-serving monetary consideration.

The current situation presents, therefore, the many truths, half-truths, and falsehoods that always enter into any attempt of the government and the medical profession to get together in a common effort. Neither side has a corner on any one of these, though naturally we consider that the medical profession is represented strongly in the first and the government, regrettably, too often in the last. Nevertheless, we feel that the profession, quite apart from the legislated obligation, has the duty either to demonstrate to the public—and make it aware—that it does and will continue to effect the self-assessment, self-discipline, and professional conscience that inevitably produce an unassailable quality of service at reasonable cost, or accept the conditional and qualified control inherent in such legislation. We admit our conviction that the individual patient has respect and affection for his individual physician, but those same patients combined into the anonymous public mass called government would very willingly support legislative leverage in the belief that they will retain the same service but at lesser—and controlled—cost.

We think the PSRO concept is an evolutionary step in a social, political, and cultural process that is already well established, and the profession stands to lose in any fight to eliminate it completely. At the same time, we think the profession can alter and amend and implement the process and try to achieve the best of both attitudes. We hope so because we feel the result is going to be a way of life for a long time.—D.E.G.



LESTER D. BOWLES, M.D.

Dr. Lester D. Bowles, 57, of Wamego, died November 21, 1973. He was born in Lathrop, Missouri, on April 5, 1916.

Dr. Bowles was graduated from the University of Kansas School of Medicine in 1947. He had practiced in Missouri, Utah, and for the past 11 years in Wamego.

Survivors include his wife, six daughters, and three sons.

WILLIAM BROWN, M.D.

Dr. William Brown, 68, of Paola, died November 8, 1973. He was born in Carbondale, on February 26, 1905.

Dr. Brown was graduated from the University of Kansas School of Medicine in 1932.

Surviving Dr. Brown are his wife and a daughter. A memorial fund has been established at the Children's Mercy Hospital, Kansas City.

JOHN A. FARLEY, M.D.

Dr. John A. Farley, 90, Topeka, died December 4, 1973. He was born January 18, 1883, in Wauken, Iowa.

Dr. Farley was graduated from the University of Iowa School of Medicine in 1915. He had previously received a degree in pharmacy. He had practiced medicine in Topeka since about 1920.

Surviving Dr. Farley are two daughters.

ROBERT D. LINDEMAN, M.D.

Dr. Robert D. Lindeman, 45, of Salina, died December 1, 1973. He was born February 1, 1928, in Salina.

Dr. Lindeman was graduated from the University of Kansas School of Medicine in 1954. He had practiced in Salina since that time.

Survivors include his wife, a daughter, and two sons. Memorial funds have been established at the Immanuel Lutheran Church, Asbury and St. John's Hospitals, all of Salina.

AMA House of Delegates

Summary of Actions Taken at the 27th Clinical Convention, Anaheim, California, December 1-5, 1973

The following report was prepared and submitted to THE JOURNAL by John C. Mitchell, M.D., Salina, and George E. Burket, M.D., Overland Park, AMA Delegates from Kansas, who both attended the meeting at Anaheim, who both appeared before the reference committees, and acted upon all the business submitted to the House.

Terms of Councils

Report D of the Council on Constitution and Bylaws provided the necessary bylaw amendments to implement the change in the length of term and number of terms of the members of the Council on Medical Education and the Council on Medical Service. The change from a five-year term with a maximum of two terms to a three-year term with a maximum of three terms was approved at the 1973 Annual Meeting.

Predetermination Forms

Report B of the Council on Medical Service was in response to Resolution 147 (A-73), which called upon the AMA to reject the use of predetermination forms, such as the Aetna Life and Casualty surgical predetermination form, as undesirable and unnecessary interference in the practice of medicine. Report B reported that Council members had met with representatives of Aetna Life pointing out that their predetermination form was illogical and impractical and requested its withdrawal. Because of contractual agreements, Aetna informed the Council representatives that the form could not be withdrawn from four accounts, but assured the Council that it would not be offered to any additional accounts.

Physicians also should be reminded of the manifest superiorities of direct billing as cited previously by the AMA House of Delegates, and the protection it offers both the patient and the physician against undesirable interference from third parties.

Reimbursement under Title XVIII

Resolution 10 requested the AMA to oppose wide differences in fees for equivalent services rendered by equally qualified physicians in different areas of a state, and also requested the AMA to formally notify the

Department of Health, Education, and Welfare of that opposition. This resolution appeared to contradict basic Association policy whereby charges for services are determined on a usual and customary or reasonable basis.

Resolution 10 was referred to the Council on Medical Service for further study.

PSRO

In the Report of the Board of Trustees and the Council on Medical Service on "Professional Standards Review Organizations," Report Z (C-72), the Association's concern over the PSRO program prior to its passage was noted. It should be recalled that the law was passed over the objections of the AMA and its spokesmen before Congress. However, the report noted that, since PL 92-603 has been adopted, the Council and the Board believed "that the American Medical Association should provide a dominant role of leadership in the implementation of the PSRO program to assure that the best interests of the public and the profession are preserved."

In line with this leadership role, specific responsibilities were assigned to the advisory committee created by House adoption of that report, including development of rules and regulations, assisting state and county associations in developing PSROs, and furnishing material for the Council on Legislation in its development of future peer review legislation.

At the 1973 Annual Convention, in adopting substitute Resolution 49, the House recognized that repeal or modification of PSRO legislation "ultimately may be required to preserve the high quality of patient care," but instructed the Association to place "highest priority on developing and pursuing appropriate amendments to preserve the high quality of patient care." Board of Trustees Report A (C-73) at this session indicates that possible changes in the law are under study; information concerning this activity is incorporated with this report.

It is stressed that at all times, the House of Delegates determines Association policy and that it is the role of the councils, committees, and the Board of Trustees to implement this policy.

For the information of the House of Delegates, the

Board of Trustees and the Council on Medical Service feel obligated to make the following observations:

1. Our very best information from Washington and bipartisan Congressional leadership is that there is no current political viability in an effort to repeal PSRO.

2. Similar exploration suggests that there is Congressional receptivity to consideration of amendments to the law.

3. "Non-participation" can be interpreted in several ways. Non-participation by constituent and component medical societies refers to the unwillingness of such societies to cooperate in the development of PSROs. Non-participation by individual physicians implies unwillingness to provide professional reimbursable services for Medicare and Medicaid beneficiaries. In general, non-participation by organized medicine in the development of PSROs would be an abrogation by the profession of its responsibility to the public and the profession to assure that monitoring of the quality and cost of medical care is professionally oriented. Regardless of participation or non-participation by physicians or medical organizations, no physician can escape review of his Medicare and Medicaid services as long as the law remains in force.

4. A significant proportion of the profession appears to agree that amendments to the law can improve it. The Board of Trustees and its Council on Legislation are currently preparing a series of amendments.

5. Experience in developing the mandated AMA leadership role in PSRO implementation has identified many areas where such amendments may be necessary.

6. Government resistance to Association recommendations in some areas indicates that, for certain facets of the program, amendment may be a more effective approach than attempts to influence regulations and directives.

7. The PSRO law is widely interpreted as a cost control measure. However, there is reason to believe that it may generate costs in excess of savings.

8. If PSRO legislation were to be repealed, other cost control measures now existing in law would be applied. Other legislative measures for cost containment would certainly be introduced.

In the light of the observations noted above, the options available to the Association are:

1. To improve the law through development of regulations and administrative practices;

2. To seek amendments to the law which would remove the undesirable features of the present statute;

3. To promote repeal of the law;

4. To suggest non-participation by all constituent and component societies. Such non-participation would spe-

cifically refer to the establishment of a PSRO by a unit of organized medicine.

Finally, it should be recognized that these options are not necessarily mutually exclusive.

The Board of Trustees and the Council on Medical Service are aware of the possibility that the House of Delegates could elect to support the idea of repeal of the law. However, the practical considerations indicate that this may be impossible to achieve, so that there should be a policy position which would prevail so long as the law remains in force.

The AMA affirms the following principles:

1. That the medical profession remains firmly committed to the principle of peer review, under professional direction;

2. That medical society programs of proven effectiveness should not be dismantled by PSRO implementation;

3. That the Association suggests that each hospital medical staff, working with the local medical society, continue to develop its own peer review, based upon principles of sound medical practice and documentable objective criteria, so as to certify that objective review of quality and utilization does take place; to make these review procedures sufficiently strong as to be unassailable by any outside party or parties; and that the local and state medical societies take all legal steps to resist the intrusion of any third party into the practice of medicine; and

4. That this House of Delegates, as individual physicians and through the Board of Trustees and its Council on Legislation, work to inform the public and legislators as to the potential deleterious effects of this law on the quality, confidentiality, and cost of medical care; and the hope that the Congress in their wisdom will respond by either repeal, modification, or interpretation of rules which will protect the public.

The considered opinion of this House of Delegates is that the best interests of the American people, our patients, would be served by the repeal of the present PSRO legislation. It is also believed that this is consistent with our long-standing policy and opposition to this legislation prior to passage.

The considered opinion of the Board of Trustees and the Council on Medical Service is to recommend to the House of Delegates that the AMA continue to exert its leadership and support constructive amendments to the PSRO law, coupled with continuation of the effort to develop appropriate rules and regulations.

Medicare

Resolution 20 provides that the Council on Medical Service request the Bureau of Health Insurance to allow

Medicare payments to be made to a physician providing an injectable drug or biological even though that physician may not administer or supervise the administration of that injectable.

PSRO

Resolution 12 called on the Judicial Council to point out actual and potential conflicts between PSRO and the "Principles of Medical Ethics." The House passed Resolution 12 as follows:

Resolved, That this House of Delegates direct the Judicial Council to clearly point out to the membership of the Association any and all conflicts, as well as potential conflicts, with the "Principles of Medical Ethics" as posed by PSRO, and other forms of professional review conducted by medical societies and their instrumentalities.

Specialty Boards

Report R of the Board of Trustees is a progress report in response to Resolution 156 (A-73), which directed the Board of Trustees to study the proportion of practicing physicians on the governing bodies of the American Board of Medical Specialties and individual specialty boards. The information requested in Resolution 156 (A-73) will be reported to the House at the 1974 Annual Convention.

Conjoint Board of Medical and Pediatric Allergy and Immunology

Report F of the Council on Medical Education was prepared in response to Resolution 130 (A-73), which alleged unfair and discriminatory actions against practitioners of allergy, and Resolution 142 (A-73), which asked that it be made possible for physicians in specialties other than internal medicine and pediatrics to qualify for examination and certification by the American Board of Allergy and Immunology, a Conjoint Board of the American Board of Internal Medicine, and the American Board of Pediatrics.

The House adopted Report F, by adding the following recommendation:

That the American Board of Allergy and Immunology, Conjoint Board of the American Board of Internal Medicine, and the American Board of Pediatrics be requested to change its name to the Conjoint Board of Medical and Pediatric Allergy and Immunology.

Hospital Boards of Trustees

Report H of the Board of Trustees responded to Resolution 124 (A-73), which was primarily concerned with the question of the degree of authority of the

salaried chief executive of the hospital in relation to the governing body. The report stated that the duties of the chief executive officer of a hospital and his responsibilities to both the governing board and the medical staff should be defined in such a way that he has no final authority over decisions by either.

Quality Assurance Program

Resolved, That the American Medical Association offer to work with the American Hospital Association to rewrite the Quality Assurance Program Manual to eliminate the undesirable QAP features; and be it further

Resolved, That the AMA continue to encourage establishment of peer review programs which include medical audit and continuing medical education; and be it further

Resolved, That the AMA hereby goes on record as disapproving of the Quality Assurance Program of the American Hospital Association in its present form.

Pre-Admission Certification

Resolved, That the American Medical Association take all steps necessary to prevent regulations mandating hospital pre-admission certification under PL 92-603; and be it further

Resolved, That the American Medical Association take all legal steps necessary to determine whether such a regulation would indeed be in violation of Section 1801 of PL 89-97 (Medicare Law).

Staff Privileges

Resolution 50 requested that the AMA Board of Trustees instruct AMA representatives to the Joint Commission on Accreditation of Hospitals to make certain that JCAH field surveyors do not compel the use of complicated lists of procedures and operations for delineating clinical privileges of medical staff members.

Determination of Death

Report A of the Judicial Council recommended that the House of Delegates adopt the position that, at present, statutory definition of death is neither desirable nor necessary; that state medical associations urge their respective legislatures to postpone enactment of legislation defining death by statute; and that the House affirm the following statement: "Death shall be determined by the clinical judgment of the physician using the necessary available and currently accepted criteria."

This recommendation was adopted by the House.

Clinical Electroneuromyographic Examination

Resolved, That clinical electroneuromyographic examinations involving interpretations, description of findings and the rendering of diagnostic opinions be performed by and/or under the direct supervision of qualified physicians trained in these procedures; and be it further

Resolved, That the American Medical Association urge state boards of medical examiners to investigate and take appropriate action whenever cases involving the performance of clinical electroneuromyographic examinations by unqualified persons contrary to the state medical practice act are brought to their attention.

Public Information

Resolved, That the Board of Trustees be instructed to continue to seek effective methods of communicating with the public and of making prompt response, when appropriate, to unwarranted criticisms of the medical profession or of the AMA.

Professional Liability

Report DD of the Board of Trustees announced that AMA has become a supporting member of the Medical Liability Commission. This Commission was organized in September 1973, to make a concerted effort to ameliorate the complex problems of medical professional liability. In addition to AMA, ten of the most important eligible organizations have formally approved supporting membership. Report DD summarized the development of the Commission, listed the current officers and Executive Committee, and outlined the structure of membership fees and assessments for supporting members.

This report was adopted with the following recommendations:

1. The Board of Trustees requested to grant the highest priority to financial and organizational support for the Medical Liability Commission.

2. The Board of Trustees urge the Medical Liability Commission to give major consideration to basic research in the field of medical liability and urge the present HEW Secretary to consult with and cooperate with the Commission in the development of a program of such basic research.

3. The House of Delegates urge all delegates, state and local medical associations and other medical organizations to give their support to the Medical Liability Commission and to submit to it any appropriate comments, suggestions or ideas for ameliorating the complex problems of medical liability.

Resolution 26 called for the House of Delegates not to accept, endorse, or concur with the Report of the HEW Secretary's Commission on Medical Malpractice, and authorized the Board of Trustees to use the resolution as it saw fit and to consider whether or not to offer help to the new HEW Secretary in revising the report.

The House adopted the following substitute resolution:

Resolved, That the House of Delegates cannot accept, endorse, or concur with the Report of the HEW Secretary's Commission on Medical Malpractice in view of the reasons given in the "Dissenting and Separate Reports" (A-73) by so many of the Commission members and concurred in by so many Commissioners.

OSTEOSARCOMA REFERRALS REQUESTED

Cooperation of physicians is asked in referral of patients with operable bone or soft tissue sarcoma to the Surgery Branch, National Cancer Institute, to enter into a randomized study of Warfarin anticoagulation and chemotherapy as adjunctive measures to surgical treatment.

Patients must have no evidence of metastatic disease and must not have received chemotherapy, radiotherapy, or surgery to the primary exclusive of biopsy or minimal local resection.

Physicians interested in further details and in having their patients considered for admission may write or telephone: Admitting Office, National Cancer Institute, Clinical Center, Room 10N119, National Institutes of Health, Bethesda, Maryland 20014. Telephone: 301-496-2031.

Medical-Legal Page

Damages Denied for Drug Side-Effects

In an action by a patient against an internist to recover damages for side-effects suffered after treatment with a drug, the Wisconsin Supreme Court held that a substandard method of care was not established where the treatment was not a deviation from the standard of care customarily practiced by skilled and competent physicians in the area.

In November, 1966, on the basis of a patient's prior medical records and tests revealing a premature arteriosclerotic condition, a specialist in internal medicine made a diagnosis that the patient was possibly a diabetic. The physician gave him a diet and in October, 1967, prescribed Diabinese.

In July, 1968, a report from a tuberculosis control center indicated that the patient had "Primary TB, inactive," which condition apparently had existed for about 10 years. The physician prescribed an INH preparation. After taking the drug, the patient became jaundiced and contracted hepatitis. He was required to undergo a laparotomy because of obstructive jaundice.

The patient brought action against the specialist, contending that he was negligent in treating him with INH and that he failed to advise him of its potential side-effects so that he could make an informed consent to the treatment. The trial court granted the physician's motion for nonsuit and dismissal.

On appeal, the patient relied on a pretrial statement by a physician who was superintendent and medical director of a TB Control Center. The statement, signed but not sworn, indicated that use of INH in this case was a departure from the standard practice.

The superintendent testified at trial that the patient was in a relatively low-risk group as far as his chances of developing active TB. He said that it was a departure from customary practice to treat such a person with INH.

On cross-examination, the superintendent acknowledged that in July, 1967, the State Board of Health modified its previous recommendations, enlarging the recommendations as to use the INH in treatment of patients with inactive TB. He said that the possibility of hepatitis as a side-effect of treatment with INH was not generally known by physicians until 1970 and it was not until then that his organization began routinely

advising patients as to such risk.

A specialist in internal medicine and pulmonary diseases testified that when he saw the patient in September, 1968, he was suffering from obstructive jaundice, probably caused by drugs, and from noninfectious hepatitis. Although he was not prepared to say for certain which drug caused the jaundice, he did not think it was Atromid-S (which the patient was taking to lower the cholesterol level) or the Diabinese. He said that the INH could have been an important factor in causing the hepatitis. He stated that he had given INH to thousands of patients and that it was relatively innocuous, causing only "a few" cases of drug hepatitis.

The specialist said that in 1968 he did not tell his patients of the possibility of jaundice because of the rarity of its occurrence. Such was the standard of practice in the community. He also said that a person with a positive TB skin test, such as the present patient, should be given INH according to the recommendations of the State Board of Health.

The surgeon who operated on the patient testified in response to a hypothetical question as to the standard of care for a patient who had been jaundiced for five days. He had no opinion as to whether such a patient should be hospitalized and given tests immediately. As to a question of whether it was a departure from the standard of care not to advise a patient of the potential side effects of INH, he replied in the negative. He also gave the opinion that the specialist's care of the patient was adequate in the light of the standard of care in the community.

The supreme court found that in granting the specialist's motion for nonsuit the trial court was correct in concluding that there was no evidence in the record which would establish a breach of the standard of care and that treatment with INH was called for under the circumstances. As to failure to inform the patient of possible side effects, the court found the evidence to be overwhelming that in 1968 physicians in the area were not aware of the possibility of hepatitis resulting from treatment with INH. The supreme court affirmed the judgment of the trial court.—*Trogon v. Fruchtmann*, 207 N.W.2d 297 (Wis.Sup.Ct., May 21, 1973)

Damages for Unsuccessful Plastic Surgery

In an action to recover damages for an unsuccessful result of plastic surgery, the highest court of Massachusetts found that a woman was not confined to recovery of her out-of-pocket expenditures but could also recover for the worsening of her condition and for the

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pain, suffering, and mental distress involved when she underwent a third operation.

The woman, a professional entertainer, consulted a plastic surgeon, seeking to have her nose altered in order to make it more pleasing in relation to her other features. After undergoing three operations, the woman's appearance was worsened rather than improved. The result could not be improved by further surgery.

The woman brought action against the surgeon, contending that she entered into a contract with him wherein he promised to perform plastic surgery on her nose, enhancing her beauty and improving her appearance. She said that although he performed the surgery he failed to achieve the promised result. Instead, her nose was deformed and she suffered pain in body and mind and was subjected to other damage and expense. She also charged the surgeon with malpractice, contending that he was negligent in performing the surgery.

The judge instructed the jury that the woman was entitled to recover not only her out-of-pocket expenses incident to the surgery but also damages flowing di-

rectly, naturally, proximately, and foreseeably from the surgeon's breach of promise. Such damages would include those for disfigurement of her nose and the effects of her consciousness of the disfigurement on her mind. The court said that the pain and suffering involved in the third operation were also compensable.

The court instructed the jury to consider the nature of the woman's profession. Since no loss of earnings had been proved, that element should not be considered, the court said.

The jury decided for the woman on the contract count and for the surgeon on the negligence count. The woman was awarded \$13,500 against the surgeon for breach of contract.

On appeal, the surgeon contended that the judge erred in allowing the jury to take into account factors other than the woman's out-of-pocket expenses. The higher court affirmed the trial court's judgment, finding that the woman was not confined to recovery of out-of-pocket expenditures.—*Sullivan v. O'Connor*, 296 N.E.2d 183 (Mass.Sup.Jud.Ct., May 9, 1973)

UNIVERSITY OF KANSAS SCHOOL OF MEDICINE

POSTGRADUATE MEDICAL EDUCATION

Symposium:

PEDIATRICS

March 11, 12 and 13, 1974

Guest Faculty:

ABRAM S. BENENSON, M.D., University of Kentucky School of Medicine.

V. F. BURRY, M.D., University of Missouri-Kansas City School of Medicine.

ADNAN S. DAJANI, M.D., Wayne State University School of Medicine.

FLOYD W. DENNY, M.D., University of North Carolina School of Medicine.

HUGH C. DILLON, JR., M.D., University of Alabama in Birmingham School of Medicine.

PATRICIA FERRIERI, M.D., University of Minnesota Medical School.

MICHAEL HATTWICK, M.D., Center for Disease Control, Atlanta, Ga.

SAUL KRUGMAN, M.D., New York University Medical Center.

ROBERT H. PARROTT, M.D., Director, Children's Hospital National Medical Center, Washington, D.C.

JERALD C. SADOFF, M.D., Walter Reed Army Institute of Research.

HERBERT A. WENNER, M.D., University of Missouri-Kansas City School of Medicine.

The prevention and/or control of the following Pediatric Infectious Diseases will be discussed:

SMALLPOX AND RABIES, BACTERIAL DISEASES, RESPIRATORY DISEASE, MEASLES AND HEPATITIS, STREPTOCOCCAL AND STAPHYLOCOCCAL DISEASES, and NEONATAL INFECTIONS AND VARICELLA.

Registration Fee: \$90.00

Small-group clinical, case presentations will be conducted by selected members of the University of Kansas faculty.

For program announcement and information, write: **DEPARTMENT OF POSTGRADUATE MEDICAL EDUCATION, University of Kansas Medical Center, Kansas City, Kansas 66103**

FOCUS:

the young family '74

A conference to promote
better understanding of the
physical, mental and moral
needs of today's family.

WASHBURN UNIVERSITY-TOPEKA, KANSAS

FRIDAY, MARCH 1 and SATURDAY, MARCH 2, 1974

Sponsored by

The Kansas Medical Society and the Auxiliary

Funded by

The Kansas Regional Medical Program

Featured Speakers:

LEE SALK, M.D., Professor of Psychology and Pediatrics,
Cornell University Medical School. Author of What Every
Child Would Like His Parents to Know.

HAROLD VOTH, M.D., Psychiatrist, The Menninger Founda-
tion.

The conference will bring together representatives from
the various disciplines dealing with health, education and
religion, for the purpose of correlating their opinions and
expertise in assisting young families.

No Registration Fee—All interested are welcome.

Rooms have been reserved at the Ramada Inn Down-
town, Topeka. Please contact the hotel for your room ar-
rangements prior to February 23.

Luncheon: \$3.00 per person. Please return the coupon
below to help us make arrangements for the luncheon.

To: The Kansas Medical Society
1300 Topeka Avenue
Topeka, Kansas 66612

Please reserve _____ place(s) for the Young Family '74 Conference
luncheon at \$3.00 per person.

Name: _____ Address: _____

Woman's Auxiliary



. . . **Health Education**

One of the chief aims of the AMA Auxiliary's Health Education Committee is to make people aware that good health habits and care are the responsibility of the individual. Through the help of all the state and some 1,200 county Auxiliaries, this aim may be better realized. State Auxiliaries are asked to promote health and quality of life conferences or seminars in areas in which health education may be most beneficial.

The national and state committees on Health Education are divided into four phases, with a vice-chairman heading each: Aging and Homebound; Mental Health; Nutrition, and Ecology. Other areas of health are covered by the Health Services Committee. Goals in health education are: (1) to assist the advancement of medicine and public health; and (2) to promote prevention through the use of up-to-date materials, films, package programs, and publication lists. Thus, the national Auxiliary becomes the promoting agent for synergistic action in community effort.

Conference on the Young Family, '74

Through the leadership and inspiration of the AMA and Auxiliary, their Quality of Life Congresses and Health Education Conference of the past two years, each state has been asked to provide its own conference. The Kansas Medical Society and Auxiliary have followed the national lead in cosponsoring a Conference on the Young Family, '74, on Friday and Saturday, March 1 and 2. The selection of subject matter was a decision of your president, Dr. Tom Taylor, and our chairman, Mrs. Dean Burnett. White Concert Hall, Washburn Campus, Topeka, is the site of our conference (see pg. 57).

The purpose of this conference is for creating better understanding of the physical, mental, and moral needs of today's family. It will bring together representatives of various disciplines that deal with health, education, and religion for the purpose of correlating their opinions in assisting young people of our state.

The featured speaker on Friday evening and Saturday

will be Dr. Lee Salk. Dr. Salk is professor of psychology and pediatrics, Cornell University Medical School, the author of *What Every Child Would Like His Parents to Know*, and the brother of Dr. Jonas Salk. Dr. Harold Voth, psychiatrist from the Menninger Foundation and a member of the Medical Society, will be the luncheon speaker on Saturday.

Participation will be prompted by panel leaders through floor discussion and small groups. Films, exhibits, vignettes, and the latest materials will be provided. Some of the successful programs in health and family-living utilized in our state will be discussed or exhibited.

We expect to draw participation from all over the state through coverage in the bulletins of many organizations, a first mailing of 6,000 to special groups, and finally a program-registration application. We seek your approval and support in this first-of-a-kind project for our two organizations. Please attend with your wife and young people. Registration, exhibits, and films begin at 4:00 PM on Friday, March 1, with Dr. Salk making his first appearance at 8:00 o'clock that evening.

In addition to the good counsel provided by Dr. Tom Taylor, Dr. Kenneth Graham and Mr. Oliver Ebel, we have been ably assisted by Jerry Slaughter. Our Steering Committee is well rounded in its representation of the Kansas State Departments of Health and Education, local physicians, the Kansas State Extension Service, Kansas School Health Advisory Council, Washburn University, Emporia State University, Kansas Health Museum, the ministry, and public relations organizations. We are excited over the potential of this project, and hope that it will stimulate a series of such conferences and followup by the various media with effective educational programs for health throughout the state.

We wish to express our sincere thanks to the Kansas Regional Medical Program for assistance in funding our conference. Wish us luck!

Katie Keys



COMMUNICABLE AND INFECTIOUS DISEASES, 7th Edition, Edited by Franklin H. Top, M.D. and Paul F. Werhle, M.D. The C. V. Mosby Company, St. Louis, 1972. 803 pages, 186 illustrations. \$35.00.

This edition of *Communicable and Infectious Diseases* is the seventh in a series dating from 1941. Eight new chapters relegated to the diseases—cholera, cryptococcosis, cytomegalovirus infections, exanthem subitum, erythema infectiosum, herpes simplex, larva migrans, and plague—have been added. An attempt has also been made to update and rewrite much of the material previously presented on other infectious diseases. In view of the current proliferation of medical information, particularly as related to diagnostic studies and treatment methods, this represented a significant and much-needed endeavor.

Fifty-six of the leading authorities in the United States on communicable diseases today collaborated in the preparation of this text. The basis format includes a brief history of each disease entity and the infectious agent involved as well as the epidemiology, immunology, pathology, clinical symptoms and complications, differential diagnosis, and current treatment.

This text is a must for today's medical student and should be a valuable reference guide for the practitioner. The chapters on enteroviruses: coxsackie and ECHO, herpes simplex, and toxoplasmosis are of particular merit.—D.E.W.

REVIEW OF PHYSIOLOGICAL CHEMISTRY, 4th Edition, by Harold A. Harper, Ph.D. Lange Medical Publications, Los Altos, California, 1973. 45 pages. \$8.50.

The many reviews by Dr. Harper on physiological chemistry are frequent enough to enable medical students, students of biochemistry, and practicing scientists and physicians to avail themselves of current information concerning biochemistry. Many in the various stages of their scientific efforts find need for a ready short accurate current reference in biochemistry, and this text is

every bit such a reference. The rapid change in nomenclature concerning metric terms is only one of several areas covered. The chapters include not only basic physiological chemistry of each subject but also in some instances a discussion of physiology. The text is not applicable to the clinical or biological aspects of medicine nor is it meant to be. The text is designed to serve as a detailed source of physiological biochemical knowledge for students and practitioners of science. This type of information is required before an understanding of clinical problems can be comprehended. Chapters are: 1. Carbohydrates; 2. Lipids; 3. Amino Acids and Proteins; 4. Nucleoproteins and Nucleic Acids; 5. Protein Synthesis, Genetic Regulation of Metabolism; 6. Porphyrins and Bile Pigments; 7. Vitamins; 8. Enzymes; 9. Biologic Oxidation; 10. The Blood, Lymph, and Cerebrospinal Fluid; 11. The Chemistry of Respiration; 12. Digestion and Absorption From the Gastrointestinal Tract; 13. Metabolism of Carbohydrate; 14. Metabolism of Lipids; 15. Protein and Amino Acid Metabolism; 16. Metabolism of Purines and Pyrimidines; 17. The Functions and Tests of the Liver; 18. The Kidney and the Urine; 19. Water and Mineral Metabolism; 20. The Chemistry and Functions of the Hormones; 21. Calorimetry; Elements of Nutrition; 22. The Chemistry of Tissues.—L.P.C.

RENAL DISEASES IN CHILDHOOD, 2nd Edition, by John A. James, M.B. The C. V. Mosby Company, St. Louis. 1972. 377 pages, 116 illustrations. \$23.50.

Nephrology, the study of renal diseases, has advanced greatly in recent years, especially in the study of adults. The application of such studies is being applied in the diagnosis and treatment of kidney disease in children. This book is comprehensive yet concise, easy to read and understand. It would be a helpful addition in the library of all pediatricians, urologists and, especially, to the generalist who treats children. The approach is clinical and practical throughout, giving special attention to techniques for obtaining clean urine samples. Each

chapter is fairly short but adequate and is followed by a comprehensive bibliography.

The following chapters are especially interesting:

1. Normal Anatomy and Physiology
2. Important Clinical Manifestations of Renal Disease—Recognition, Pathogenic and Management
3. Clinical Diagnostic Procedures and Tests—Renal Radiology
4. Embryology and Structural Anomalies of the Urinary Tract
5. Kidney Function and Kidney Disease in the Neonatal Period and Early Infancy (of special interest to those who attend infants)
6. Urinary Tract Infections
11. Acute Renal Failure
12. Miscellaneous Disorders of the Kidney
13. Renal Complications of Septicemic Disease
14. Chronic Renal Failure
15. Dialysis and Transplantation.

This book is recommended.—C.C.U.

Announcements

(Continued from page 14)

University of Kansas:

Feb. 9-16 *Anesthesiology*, Oahu, Hawaii
 Feb. 17-24 *Surgery*, Mexico City, Mexico
 Feb. 27 *Mentally Handicapped Child*, Great Bend
 Mar. 11-13 *Pediatrics*

For further information, write the Department of Postgraduate Medical Education, KUMC, Kansas City, Kansas 66103.

University of Colorado:

Feb. 11-15 *Newborn Radiology Seminar*

For further information, write the Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver 80220.

Letters to VOX DOX should be addressed to the Vox Dox Editor, Journal of the Kansas Medical Society, 1300 Topeka Avenue, Topeka, Kansas 66612.

Information for Authors

Manuscript Preparation

Manuscripts must be typewritten, double spaced, leaving wide margins. Submit the original, plus one copy if possible.

Titles should be short, specific, and amenable to indexing. A subtitle is frequently used to keep the main title short.

Summary: All manuscripts should include a short abstract which is a factual (not descriptive) summary of the work.

Author Responsibility: The author is responsible for all statements made in his work, including changes made by the copy editor. Manuscripts are received with the explicit understanding that they are not simultaneously under consideration by any other publication. Publication elsewhere will be subsequently authorized at the discretion of the Editor.

Galley Proof: To make extensive changes in the article after the text has been set in type may require an additional cost which exceeds the original. The galley proof is for correction of ERRORS, and a rewriting of the article should be done on the original copy BEFORE it is submitted for publication.

Drugs should be called by their generic names; the trade names can be added in parentheses if they are considered important. All *units of measure* must be given in the metric system.

References

Bibliographic references should not exceed 20 in number, documenting key publications. Personal communications and unpublished data should not be included. References should be arranged according to the order of citation, and not alphabetically. All references must be numbered consecutively and all must be cited in the text. Use the style of the AMA publications, giving: name of author, title of article, name of periodical, volume, pages, year.

Illustrations

All material which cannot be set in type, such as photographs, line drawings, graphs, charts, tracings (for preparation of tables, see below) must be mounted on white cardboard. All must be identified on the back as to figure number, author's name, and an arrow indicating top. Legends should be typed double spaced on a separate sheet of paper, limited to a maximum of 30 words.

Drawings and graphs should be done professionally in India ink on illustration board or high grade white drawing paper.

Photographic material should be submitted in duplicate as high-contrast, glossy prints. Color illustrations will be accepted for publication only if the author assumes the cost.

THE JOURNAL will assume the cost of B/W engravings and cuts up to \$35 (or 5 cuts). Engraving cost for illustrations in excess of \$35 will be billed to the author.

Tables

Because tables are set by hand, their cost is comparable to illustrations. A reasonable number of tables are allowed without cost to the author.

Tables should be self-explanatory and should supplement, not duplicate, the text. Since the purpose of a table is to compare or classify related items, the data must be logically and clearly organized. The relationship and comparison are established by the correct choice of column heads (captions of vertical columns) and stubs (left entries in horizontal listings).

Each table should be typed double spaced, including all headings, on separate sheets of lettersize paper. Oversize paper should not be used. Instead, repeat heads and stubs on a second sheet for tables requiring extra width. Number tables consecutively. Each table must have a title.

Reprints

A reprint order form with a table covering cost will be sent with the galley proof to each contributor. Since the JOURNAL has no way to provide for reprints, they must be ordered by the author and purchased directly from the printer.

KANSAS STATE DEPARTMENT OF HEALTH

TOPEKA, KANSAS

Epidemiology & Disease Control Services—Registration & Health Statistics Services—Kansas Morbidity Incidence
Summary of Cases Reported in July, 1972 and 1973

Diseases	July			January-July Inclusive		
	1973	1972	5-Year Median 1969-1973	1973	1972	5-Year Median 1969-1973
Amebiasis	2	2	2	13	27	13
Aseptic meningitis	1	2	2	2	5	7
Brucellosis	—	1	—	—	1	1
Diphtheria	—	—	—	—	—	—
Encephalitis, prim., infect.	—	—	—	7	5	7
Encephalitis, post-infect.	—	3	—	1	7	1
Gonorrhea	639	667	558	4,537	4,753	3,973
Hepatitis, infectious	56	56	56	310	312	310
Measles (Rubeola)	—	—	1	17	27	27
Meningococcal meningitis	—	—	—	9	15	14
Mumps	—	—	—	762	655	655
Pertussis	—	—	—	6	4	4
Poliomyelitis	—	—	—	—	—	—
Rheumatic fever	—	—	—	1	1	1
Rubella (German Measles)	—	—	—	62	195	62
Salmonellosis	26	30	30	146	222	146
Scarlet fever	—	—	—	28	31	31
Shigellosis	25	34	25	143	354	143
Streptococcal infections	249	341	249	6,215	3,779	2,927
Syphilis	89	92	112	702	788	789
Tinea capitis	3	—	3	14	13	14
Tuberculosis	19	18	18	108	113	113
Tularemia	—	2	1	—	2	2
Typhoid fever	1	1	—	1	2	—

BOOKSHELF

Books acknowledged in this section are available on loan from the Health Sciences Library, c/o Stormont-Vail Hospital, 10th & Washburn, Topeka, Kansas 66606.

Hormones: Chemical Communicators

by Roger Lewin

Doubleday & Co., Inc., New York

1973 113 pages \$1.95

Physician's Handbook, 14th Edition

by Marcus A. Krupp, M.D., Norman J. Sweet, M.D.,
Ernest Jawetz, M.D., Edward G. Biglieri, M.D. and
Robert L. Roe, M.D.

Lang Medical Publications, Los Altos, Cal.

1973 727 pages

The Persecuted Drug: The Story of DMSO

by Pat McGrady, Sr.

Doubleday & Co., Inc., New York

1973 372 pages \$7.95

Seeing and the Eye

by G. Hugh Begbie

Doubleday & Co., Inc., New York

1973 240 pages \$2.95

Your Prostate

by Robert L. Rowan, M.D. and Paul Gillette, Ph.D.

Doubleday & Co., Inc.

1973 147 pages \$5.95

The Low Blood Sugar Cookbook

by Margo Blevin and Geri Ginder

Doubleday & Co., Inc., New York

1973 520 pages \$8.95

26th Annual

MIDWEST CANCER CONFERENCE

CENTURY II

MARCH 29 & 30, 1974

WICHITA, KANSAS

"CURRENT CONCEPTS IN THE CLINICAL MANAGEMENT OF CANCER"

GUEST FACULTY

CUSHMAN D. HAAGENSEN, M.D.
Department of Surgery
College of Physicians and Surgeons
Columbia University
New York, New York

ANTHONY CURRERI, M.D.
Associate Vice Chancellor
for Health Services
University of Wisconsin
Madison, Wisconsin

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M. D. Anderson Hospital
University of Texas Medical Center
Houston, Texas

LEO P. CAWLEY, M.D.
Department of Pathology
Wesley Medical Center
Wichita, Kansas

FRIDAY MORNING PROGRAM

9:00 A.M. "PROSPECTS FOR THE 'CURE' OF DISSEMINATED HODGKINS DISEASE"—Charles Coltman, Jr., M.D.

10:15 A.M. "CURRENT CONCEPT IN THE MANAGEMENT OF PROSTATIC CARCINOMA"—John B. Wear, Jr., M.D.

11:30 A.M. Luncheon—Guest Speaker: Leo P. Cawley, M.D.—"LABORATORY TESTS FOR THE EARLY DIAGNOSIS OF CANCER: A STATUS REPORT"

FRIDAY AFTERNOON SESSION

This session will start promptly at 1:00 P.M. and adjourn at 5:00 P.M. "CURRENT CONCEPTS IN THE TREATMENT OF BREAST CANCER, A SYMPOSIUM"—Cushman D. Haagensen, M.D., Vera M. Peters, M.D., George Crile, Jr., M.D., Anthony Curreri, M.D.

FRIDAY EVENING

6:00 P.M. to 7:30 P.M. "VISIT WITH THE PROFESSOR"—This is a special session to be held in the Crown Room of the Regal Inn.

SATURDAY MORNING SESSIONS

9:00-9:50 A.M. Section A—for medical practitioners—"CURRENT CONCEPTS IN THE THERAPY OF LEUKEMIA AND LYMPHOMA"—Vera M. Peters, M.D., Charles Coltman, Jr., M.D., Jay P. Sanford, M.D. Sections B & C—for surgeons and gynecologists—"URINARY DIVERSION BECAUSE OF MALIGNANT DISEASE: WHEN, HOW, AND WHY"—John B. Wear, Jr., M.D.

10:15 A.M. Section A—continuation—"CURRENT CONCEPTS IN THE THERAPY OF LEUKEMIA AND LYMPHOMA"—Drs. Peters, Coltman, Sanford. Section B—"CURRENT CONCEPTS IN THE THERAPY OF FEMALE GENITAL TRACT CANCER"—Gilbert Fletcher, M.D., James L. Breen, M.D. Section C—"CURRENT CONCEPTS IN THE SURGICAL THERAPY OF CANCER"—George Crile, Jr., M.D., Anthony Curreri, M.D.

The Professional Education Committee of the Kansas Division of the American Cancer Society invites all physicians in the entire mid-west to attend a two-day graduate course on cancer. No registration fee. 18 hours credit approved by AAFP.

115th Annual Session

KANSAS MEDICAL SOCIETY

May 5-8, 1974, Topeka

MODERN ASPECTS OF TRAUMA

1. Aeromedical Transportation of the Injured
2. Medico-Legal Aspects of Trauma
3. Symposium on Fat Embolism

The 1974 meeting will be held in conjunction with the following specialty societies:

KANSAS SOCIETY OF PATHOLOGISTS

KANSAS OBSTETRICAL AND GYNECOLOGICAL SOCIETY

KANSAS ALLERGY SOCIETY

KANSAS SECTION ON EAR, NOSE AND THROAT

KANSAS SOCIETY OF ANESTHESIOLOGISTS

The Kansas Medical Society—1973-1974

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NATIONAL HEALTH INSURANCE

The first round of Congressional hearings on National Health Insurance (NHI) concluded following a week of testimony from experts in the health-economic field who laid a general philosophical foundation for full-scale legislative sessions early in the new year.

The hearings by the House Health Subcommittee were the opening gun in what promises to be a busy 1974 in Congress on the issue of a NHI bill.

The subcommittee, headed by Rep. Paul Rogers (D., Fla.), has charted six weeks of further testimony that will consider specific legislative proposals. The House Ways and Means Committee also is slated to explore NHI sometime this year. Senate sessions are expected to open during the winter or spring by both Senate Finance and Senate Labor and Public Welfare Committees.

According to Budget Director Roy Ash, NHI should be kept to a size that will avoid creating more demands for health services than can be met with existing resources. Otherwise, he said in an interview with the *New York Times*, there is a danger that the sole accomplishment would be an increase in the prices of health services.

Many of the witnesses before Roger's subcommittee predicted that a financing mechanism for NHI without other provisions would add to inflation of health care costs without much impact, if any, on the health of

Americans. Other experts questioned whether any type of NHI would improve health, contending that environment, life styles, poverty, etc., are to blame for poor health conditions.

The closest approach to a consensus was that too much hope should not be placed in a NHI program to solve the health care problems of the nation.

One of the final witnesses, Robert J. Myers, former Chief Actuary of the Social Security Administration, denied there has been any crisis in health care costs, asserting that health has simply been caught up in the "general price and wage inflation resulting from the Viet Nam war, plus the more rapid wage increases of hospital personnel . . . plus the historical trend of medical care costs rising more rapidly than the general price level. . . ."

Myers said there is "far too much" first dollar coverage in private health insurance and not enough catastrophic coverage. Catastrophic, he said, "is sorely needed by most Americans" and should vary with income and assets.

"I am convinced that cost-sharing provisions, properly designed can have a beneficial effect in preventing overutilization without being an unjust economic barrier that will result in preventing the insured from receiving necessary medical care. . . ."

Under a sweeping NHI, such as proposed by Sen. Edward Kennedy (D., Mass.), and labor, "the providers of services might rebel if the financial screws on them are tightened too rapidly or too much, or the beneficiaries might rebel if they are regimented or controlled too much as to their desires for medical services," Myers told the subcommittee.

Herbert Denenberg, Pennsylvania Commissioner of Insurance, asked for strict cost and quality controls in any NHI program. "Pumping more dollars into a health care system with serious structural shortcomings will aggravate present problems."

Earl Brian, M.D., California Secretary of Health, stressed that the cooperation of organized medicine and other health providers is necessary for a NHI program to work. Otherwise, the nation's health care system will deteriorate, he said. As many responsibilities as possible should be left to the providers, according to Dr. Brian. He cited the cooperation of organized health groups in California despite state controls that have "alienated the health care community." The demand for medical care will always exceed the dollars available, he said, so any program must contain restrictions which relate it to the free market system. The present concern over Professional Standards Review Organizations is only a harbinger of what would happen if a bureaucratic NHI were enacted and demonstrates the "imprudence of permanent government controls," he asserted.

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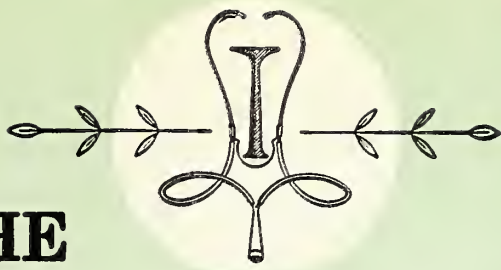
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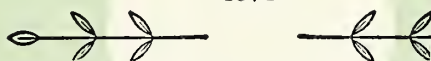
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The JOURNAL of the KANSAS MEDICAL SOCIETY

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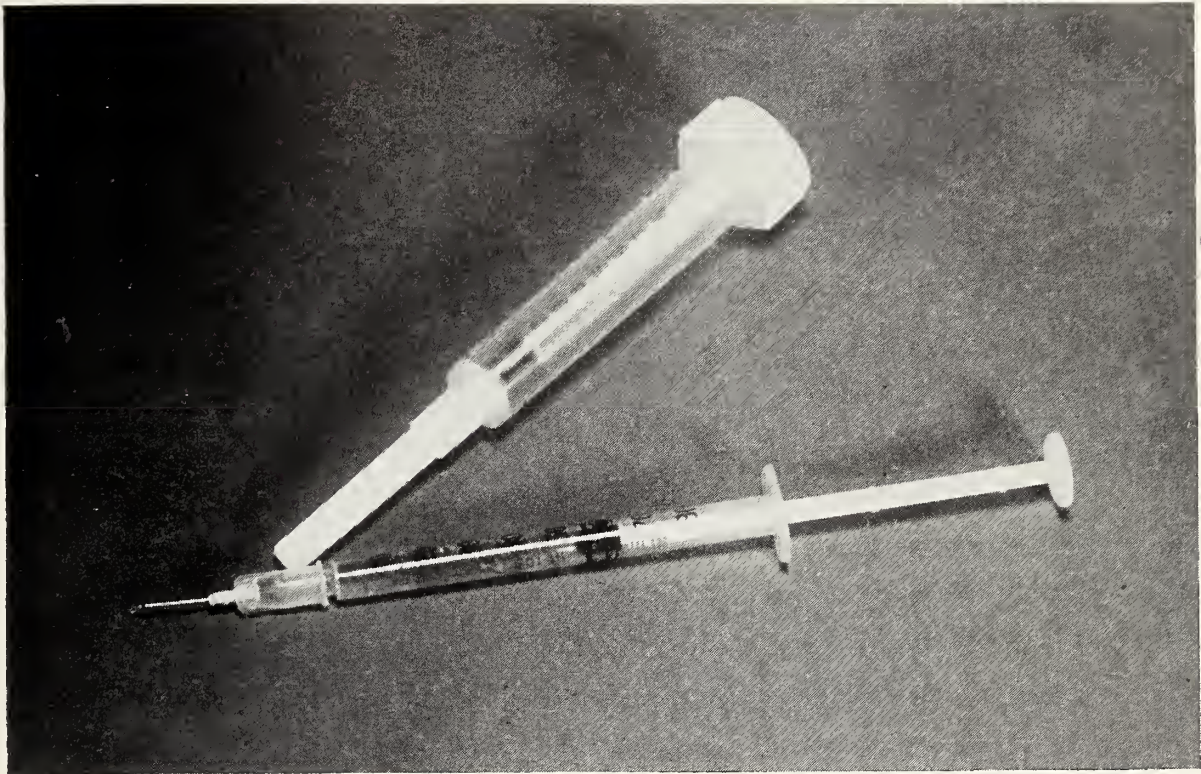
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THE POWER AND THE FRAILTY, Jean Hamburger, M.D. The Macmillan Company, New York. 1973. 140 pages. \$4.95.

This short readable book engages major problems of our society and profession. An overall perspective is gained but the issues raised involve complex social and professional forces which require analysis and discussion beyond the depth afforded them.

The most significant issue raised is the relationship of the medical practitioner to his patient, both in the individual one-to-one relationship and in the larger sense of how medicine will define and meet its responsibility to the society of man.

The physician, Dr. Hamburger states, must provide not only technical decision making based on an ever enlarging foundation of scientific information, but must blend this with compassionate moral support for his patient and his weaknesses, wishes and ideas about life, suffering, and well-being. In order to function, he must operate in an atmosphere of a full liberty of mind motivated by a profound inner drive.

One need only reflect a moment to realize the forces in today's society which compromise the full liberty of mind. The financial squeeze of controlled fees and rising living and practice costs, HMOs and PSROs drive us from the happy state proposed. The profound inner drive is dissipated in endless meetings and power struggles. Our efforts to avoid, or at least control, changes which affect us are perhaps an effort to focus the drive back where it belongs: on our patients.

The picture is broadened in the later chapters of the book to consider maldistribution of health care to populations and the implications of the great success of medicine which has allowed a rapid multiplication in world population. This leads to a quick discussion of the goals of medicine and of mankind to achieve a healthy life worth living through the application of

human intelligence. This road is rapidly travelled in the context of medicine leaving more questions than answers to this reader.

The book is concise, readable, and thought provoking about where our profession has been going, where we are, and where we and our society are going. This volume will be contributed to the Stormont Medical Library.—A.C.C.

THE LYMPHATIC SYSTEM, by Ippolito Donini and Mario Battezzati; translation by Vilfrido Cameron-Curry. Piccin Medical Books, Padova, Italy. 1972. 496 pages, illustrated.

This book describes and illustrates in detail the present knowledge of the lymphatic system including history, embryology, anatomy, and physiology of the methods for the clinical investigation of the lymphatic system.

Various methods, techniques, contrast media used in diagnostic lymphangiography are discussed. One chapter devoted to the pathology of the lymphatic collecting ducts and another chapter on the pathology of the lymph node prepare an excellent background for the normal and pathological description and roentgenological anatomy of the lymphatic system of various organs and systems.

This book would be a welcome addition to any medical hospital library and for the personal library of the pathologist, radiologist, hematologist, oncologist, gynecologist, urologist, general surgeon, and the internist.

A section on lymphatic venous anastomosis for treatment of lymphedema with illustrations of operations performed is of special interest to the surgeon.

The index of contents, author index, and references are extensive.—C.C.U.

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Month in Washington

Despite strong arguments from physician groups, including the AMA, for an exemption from all wage and price controls for the medical profession, the Council refused to step back from its November proposal to impose the 4 per cent ceiling.

As in November regulations, physicians under Phase IV will be permitted an annual aggregate fee increase of 4 per cent. A 10 per cent maximum fee increase is allowed for specific charge items; fees under \$10 can be raised by \$1.

The limits are effective as of the first of this year, and they remain legally in effect until April 30, by which time Congress must authorize an extension of the President's power to impose wage-price controls, or they will expire. There is growing sentiment in the Senate and the House to terminate the program.

The regulations in the health field have been under court attack. Nursing homes have won a preliminary legal battle in their suit against the Phase III controls. The American Hospital Association has threatened to challenge the controls in court.

Hospitals were restricted to a 7.5 per cent increase per in-patient stay, with adjustments for volume changes.

Under the final regulations, all physicians must maintain a schedule showing prices in effect on December 28, 1973, which comprises 90 per cent of their revenues, and the subsequent changes and dates. "A conspicuous and easily readable sign" must be posted stating the availability and location of the price schedule. The requirement applies whether or not fees have been increased.

The Council said that physicians and medical laboratories that have not raised charges as allowed in the past will be allowed to apply the unused portion of increase up to a maximum of 5 per cent.

Health outlays last fiscal year for the nation reached \$94.1 billion, an 11 per cent increase, the lowest rate in several years. The proportion of total health spending to the Gross National Product remained at the 1972 level—7.7 per cent. Per capita expenditures rose by \$41, to \$441, including private and government spending.

The Social Security Administration's preliminary figures for the fiscal year that ended last July showed per capita private spending on health of \$265, and government spending of \$176 per person for the year.

The ratio of public versus private health spending continued the trend of two decades toward more government spending. The ratio for fiscal 1973 was 60.1 per cent private, and 39.9 per cent public. In 1928, the corresponding ratio was 86.7 per cent and 13.3 per cent.

Of the \$94 billion total, \$36 billion went for hospital care, \$18 billion for physicians' services, compared with \$32.6 billion and \$16.6 billion the previous year.

Federal spending was estimated at \$24.6 billion, up almost \$2 billion; state and local, \$12.9 billion, up more than \$1.5 billion.

Expenses for prepayment and administration, largely private health insurance expenses, rose from \$2.4 billion in fiscal 1972, to \$3.3 billion in fiscal 1973.

The American Medical Association recognizes that supplemental printed information given to the patient by the pharmacist at the physician's discretion would be valuable for certain classes of drugs.

However, the AMA stated at a Washington, D. C., conference on patient drug information that the preparation and distribution of such informational material pose a number of problems.

"Patients differ in their drug requirements with respect to dose, duration of therapy, and adjunct medication. They also differ in therapeutic response, adverse side effects, and toxic reactions. The information in a 'patient package insert' might be helpful to some patients but might confuse, frighten, or even harm other patients."

The meeting of medical, drug, and consumers representatives was told by an AMA spokesman that the usefulness of a patient package insert should be explored for a limited number of drugs. The AMA, the Food and Drug Administration, and the manufacturer could cooperate in preparing informational material on a limited number of drugs, selected because they are used over a long period of time or have a high incidence of interaction with other drugs.

The acceptance of such material by patients and physicians and the impact it might have on the way in which patients used drugs should be assessed before encompassing a large number of therapeutic agents in the program, according to the AMA.

The FDA has been considering steps to broaden the package insert to assure it reaches patients for many drugs.

Twenty-Eighth
Annual
University of Kansas
School of Medicine
Issue

The Dean's Letter—1974

The University of Kansas Medical Center

WILLIAM O. RIEKE, M.D.,* *Kansas City*

IT IS AGAIN a pleasure to extend sincere and enthusiastic greetings from the University of Kansas Medical Center and all of its programs to you, the readers of THE JOURNAL. Although it technically is no longer correct to call this note the "Dean's Letter" because the title of the chief executive at KUMC has been changed from Dean to Vice-Chancellor, and now to Executive Vice-Chancellor, the communication value of this annual message remains as important as ever. This is particularly true when it is possible to report the kind of growth and progress that currently exist and were projected in the letters written during the previous two years that it has been my privilege to lead the University of Kansas Medical Center.

During the last two years, four primary program goals have been identified. These are to: (1) expand the size of our medical class; (2) develop a clinical branch of the University of Kansas School of Medicine at Wichita State University; (3) build new basic science and clinical buildings in Kansas City to meet increased educational and clinical service loads; and (4) establish programs for training house staff as well as medical students in communities outside of Kansas City. In addition to these primary goals, a number of other program objectives have been previously listed. It will be a pleasure now to report the current status of all of these. Further, this writing will introduce you to some new endeavors aimed specifically at facilitating communication between you and KUMC, and enabling your state medical center to serve you and all Kansans better.

Concerning the first of our primary goals, *viz.*, to increase enrollments in health training programs, there has been a further enlargement in the full time student body at KUMC during 1973-74. With this record high (1,773) in total students, the number of entering freshman medical students was increased from 154 in 1972, to 163 in 1973. In the summer of 1974, it is again planned to enroll 163 freshmen medics. Then, if our new basic science building is at or near completion, we will increase this number to 200 in 1975. The number and academic quality of applicants for medical school continues to increase, and a record number of nearly

400 requests for admission were received from Kansas residents (plus another 600 from non-Kansans) for the class of 1974. The number of females applying has also increased dramatically, and at this time it appears that the entering medical class of 1974 will contain approximately 20 to 25 per cent women. The number of ethnic minority students in medical school has also increased, so that there are currently 28 students enrolled, with eight of these expected to graduate in 1974. With the full implementation of the three-year medical curriculum, 1974 will be the year when the "double class" will be produced. That is, during calendar year 1974 there will be 253 new MDs produced, rather than the usual annual number of approximately 125.

With the continuing expansion of the medical class, it is a pleasure to be able to report that the clinical branch of our medical school in Wichita has now received its first students. Since January of 1974, there have been 15 individuals taking their clinical rotations at the Wichita State University Branch of the University of Kansas School of Medicine. This number will be increased during the next three years, until 50 to 60 students at each of the junior and senior levels of medical training are present in Wichita. The Branch is continuing its recruitment of full and part time faculty, and progress is being made almost exactly according to the originally projected time table. As I reported last year, a very major investment of state money is being made to support post MD (house staff) training programs as well as pre MD programs in Wichita. This will continue and will be markedly expanded in the years ahead with particular emphasis on the support of family practice trainees.

Relative to the new building program at the Kansas City campus, it is gratifying to be able to report that in spite of some inevitable slippage in the time schedule, good progress has been made. Most importantly, the expansion, which in the next three years will double the size of this campus, is proceeding on a sound fiscal basis. Bids were received in late 1973 for the new 100,000 sq ft basic science teaching building. Several of these bids were well under the estimated costs, and the approximately 6-million-dollar project is now under contract. Construction has begun and is targeted for completion in September of 1975. The new clinical

*Executive Vice-Chancellor, the University of Kansas Medical Center, Kansas City, Kansas 66103.

facility which will contain six floors and a total area of nearly 800,000 sq ft likewise is progressing satisfactorily. Several phases of preliminary utility relocation have been accomplished, and currently the contract for the entire excavation phase has been let. If costs of the next phases relating to steel, foundations and footings, and precast remain within the budget as have the previous phases, it is anticipated that the new hospital will be open in mid-1977.

The programs for training house staff away from the Medical Center continue to grow. The pilot endeavor begun in July of 1972, in Garden City, with surgical residents has been broadened to include medical house staff as well. In July of 1973, a surgical training program was begun in Topeka and this was augmented in October of 1973 by the addition of a pediatric resident. By June of 1974, house staff in internal medicine should be receiving a part of their training in Topeka. Currently, Great Bend is ready and waiting to receive a resident as soon as one can be freed to rotate there. In addition, contacts have been made to work toward subsequent programs in Concordia and in the Fort Scott-Parsons-Pittsburg area. Finally, as the Branch in Wichita develops further, there will be more rotations out of Wichita to neighboring communities for family practice and other types of house staff.

Last year, I noted that a number of program objectives other than the four primary ones described above were being developed. Among these was a plan for reorganization of the Medical Center in Kansas City to recognize the fact that more than half of our total of 1,773 full time students were individuals in health science training programs *other than* medicine. It is a pleasure to be able to report that at its February 1974 meeting, the Kansas Board of Regents did approve our proposal for administrative reorganization and the Medical Center now will become a College of Health Sciences encompassing three separate schools, *viz.*, a School of Medicine, a School of Nursing, and a School of Allied Health. I believe that this will allow much better

administrative identification and support of all of the training programs in the health professions. The official title of the Medical Center now will be: The University of Kansas Medical Center, College of Health Sciences and Hospital.

In closing this year's letter, I want to announce two new developments that have been implemented by the Medical Center in an attempt to facilitate communication between KUMC and the practicing medical community all across our state and others. The first of these is that we have begun sending short summaries of what happened to the patients you referred to KUMC to you very soon after they are discharged from the medical center hospital. These summaries will not replace the usual detailed report which you will continue to receive at a later date. Rather, they are designed to give you a brief and relatively instantaneous précis of diagnosis, treatment, and recommendations made to your patient so that you will be informed at the earliest possible moment and be better able to manage your patient when he or she returns home. Secondly, we have installed and activated a reverse or inward WATS line, #800-332-4199, which you may use at any time seven days a week to call the Medical Center TOLL FREE to refer patients, seek information, or make any other contact with members of the Medical Center faculty or staff that you need. When you use the WATS line, you will reach a Medical Center operator who will direct your call to whatever physician or individual you request. As an aid to let you know who our physicians are and what their specialties include, we will soon be sending a faculty directory to the Kansas Medical Society which in turn will distribute it to you.

With the passage of another year, we thank you for your continued interest and support. We look forward to ever increased efforts to train and retain more health personnel for Kansas. We also hope the new procedures we have implemented to make our communication and medical service better will be useful to you.

Kindest regards!



Kansas Preceptorship Program

Community-University Collaboration in Educational Process

JOSEPH G. HOLLOWELL, JR., M.D. and
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SINCE 1950, the University of Kansas School of Medicine has engaged in a preceptorship program for medical students as a means of providing a period of comprehensive general medical education. The program aimed "to present to the medical student the broadest aspects of the practice of medicine . . . designed to demonstrate a medical way of life." It was also recognized that the rapid change in medical practice required a program which could adapt to changes.¹ The design for conceptual and educational expansion of the program described herein is addressed to the latter.

Great social change has occurred in the 23 years of this program. There has been increasing public and university awareness of the university role as a social instrument. Consistent with this, changes in educational philosophy promote student self-propulsion, maximum participation and contribution in clinical settings, in curriculum planning, and in the development of social instruments for systems evolution.

This experimental revision of the preceptorship program is a step toward realizing the significant strength of the educational process as a means to promote appropriate social change. More specifically, this program is directed not only to the education of health professional students (medical students at this point in time), but also to a broader, more distant goal of promoting the health of the citizens of Kansas. The program is expected to enhance student education and to demonstrate the interest and potential for change existing within the community, as well as the potential for an attractive, exciting, intellectually and emotionally rewarding career within the community.

Goals and Objectives

The overall goals of the experimental preceptorship in primary care are in the fields of (1) student education; (2) community professional and university pro-

fessional education; and (3) research in health issues. Specific objectives will be expanded later in the paper.

Implementation

The implementation of this experimental program has been undertaken by the Department of Human Ecology at Kansas University Medical Center, co-sponsored by the departments of Family Practice, Internal Medicine, Obstetrics-Gynecology, Pediatrics, Psychiatry, and Surgery.

The program differs in several ways from the regular preceptorship. Preceptors are chosen on the basis of license to practice medicine in Kansas, enthusiasm and understanding of the program, and willingness to participate in two half-day workshops during each four-week preceptorship module. Students in the last year of training are assigned to preceptors in one geographic part of the state. This is done to facilitate gathering for the two workshops in each module. The workshops, which are held in the community sponsoring the preceptorship, basically are forums for establishing communication and educational links between the community and the University. At the same time, they give the student an opportunity to broaden his community exposure through contact and exchange with other students and professionals from the area.

Southeast Kansas was chosen for the initial experience because of its proximity to the Medical Center. Questionnaires were sent to the current listing of members of the Kansas Medical Society in the nine southeast counties. Physicians who indicated an interest in being preceptors were asked to return a completed questionnaire describing the community, facilities for the student, their practices, and other potential contributions from the local level. Fifteen physicians representing eight practices have joined as preceptors in the Southeast program. Several more have participated by way of the workshops.

The format of the first workshop set the stage for surfacing of specific university faculty, preceptor and student agenda, and for development of program direction. Each workshop identified topics for subsequent presentation and discussion.

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The development of programs in other locations in Kansas—while continuing programs already established—requires that each established program identify area leadership responsible for selecting and rotating preceptors, organize the workshops, instigate evaluation, and direct the University in its support of the educational process most effective for that particular community. The University coordinates the flow of preceptees to the communities, evaluates the overall effect and effectiveness of the preceptorship model in fulfilling its objectives, and demonstrates sensitive responsiveness to community direction and, where appropriate, to specific requests.

Northeast Kansas has been identified as the next region for program development. Ten physicians representing seven practices were chosen as preceptors for the program which began with the February 1974 module.

Progress

Student Education

In the Southeast Kansas program to date, there have been 19 students enrolled in three modules. As in the traditional preceptorship program, the faculty leader of the student's educational process in this program is the preceptor. The experimental program additionally offers a greater opportunity for educational support from other community professionals and from University faculty. The student working one-to-one with his preceptor has the opportunity to visualize the physician in his environment and to determine some of the environmental factors which lead to professional well-being. Observing certain professional-patient-community transactions, the student can see how the preceptor keeps his energy expenditures and intellectual, emotional, physical support factors in balance.

The other benefits of the traditional program are inherent in this one. The student has the opportunity for learning about the patient in his own environment, visualizing environmental determinants of health, and visualizing the community, its environment, and its health. He also has the opportunity to understand the strength and weakness of the health care system within the community. The experimental program has enhanced this process to some degree by allowing students and preceptors from different communities to exchange their observations and gain a broader community view.

The program in Southeast Kansas defined specific student learning objectives during one of the workshops. The objectives have been useful to the students and to others by identifying the potential of the pro-

gram, and by providing a common end-point with variable, flexible means for accomplishment. This is in keeping with the development of specific learning objectives for all clinical, basic science, or elective units at KUMC.

The workshops of the experimental program have allowed didactic input into the preceptorship by University and community professionals. To date in three modules, there have been five workshops which discussed the preceptorship as an educational instrument, the roles in health care of professionals other than physicians, aspects of health education for patients, and methods for defining instructional objectives. Preceptors, other community professionals (physicians, nurses, health administrators, and others), students, and University faculty contributed significantly to these topics.

Professional Education

Consistent with the maxim that educational responsibilities breed continuing self-education, the program is designed to increase preceptor opportunities for definition of these by interchange with other preceptors, community professionals, and University professionals. The opportunity is also increased for the preceptor and the group to initiate appropriate additional University inputs. Thus, the student and the program have become the medium for both community and university professional self-education.

In five workshops to date, many obstacles to communication have been overcome. Information flows at a fairly non-threatening level. Topics presented at the various workshops have been jointly discussed by community professionals and University professionals. For example, in the topic, "Health Care by Professionals Other than Physicians," the current status in Kansas was discussed by one of the preceptors, and definitions of various terms such as physician's assistant, nurse clinician and others, along with their functioning, was presented by one of the University faculty. The topic, "Description of the KUMC Nurse Practitioner Training Program" was offered by a member of the University faculty, and a preceptor and the nurse clinician who work with him described their complementary functioning in that office. The educational and communication opportunities have become quite extensive.

Research of Health Issues

While the faculty at KUMC are given the task of training primary care physicians for Kansas, it is quite clear that there is much to be learned about the problems of primary care. The medical curriculum does not contain an effective definition of health other than one

restricted to absence of disease. Objective input and knowledge of problems and potential resources is essential for definitions of health, realistic medical and health education programs, and the development of responsive health care systems. The experimental preceptorship offers unique opportunities for jointly conducted clinical research to understand and explore significant questions dealing with health and health care, by fostering a milieu for synthesis of the expertise, ideas, and questions of community physicians, other community professionals, and University faculty.

Future Plans

For the experimental preceptorship in primary care to be effective, each established regional program has to identify leadership in the community for continuation and growth of the program. This must be coupled with effective long-term communication linkages which will facilitate responsiveness of the University to the program's requirements. The Southeast Kansas program plans to petition the Southeast Kansas Medical Society to sponsor the administrative function and appoint the existing preceptors to a committee which will organize and administer the program. Workshops and meetings over the past six months have established communication between members of the University faculty and preceptors. In addition to this, an interchange program in which members of the University faculty will visit with individual preceptors for a few days to learn some aspects of primary care, to add expertise as a consultant to the physician or the community, to join in set clinics with community physicians, to make hospital rounds and to visit other preceptors in the community, will further this communication potential. In exchange, a community physician can visit with that faculty member or others at the University, to participate in teaching or postgraduate roles, and contribute to the educational process at the Medical Center.

The potential for preceptorship programs in other geographic areas will be developed for statewide extension. In order to plan for future growth of the program, the density of interested physicians in Kansas was ascertained recently by questionnaires sent to Kansas Medical Society members. The limited return on this questionnaire showed clustering around Manhattan, in the north-central region around Beloit; south-central around Halstead; central around Great Bend; and three western groups located around Dodge City, Garden City, and Hoxie. As the program develops, the potential interest and identification of specific areas will become clearer. It is planned that all licensed

members of the Kansas Medical Society interested in being preceptors will be invited to participate.

Discussion

Preceptorships may be of limited value in their influence of physicians to go into family practice or to locate in rural areas. The Wisconsin preceptorship experience, which began in 1926, was recently evaluated through student questionnaires dating back to the class of 1934. Whereas there was a three-to-one opinion that the preceptorship should be continued, it was determined that the location of the physician's practice was not influenced by the preceptorship. The selection of career was, but negatively, in favor of specialization. The value of the learning experience to the Wisconsin students was: (1) an opportunity to assume greater responsibility; (2) increased contact with acute disease; (3) the development of a close teacher/student relationship; and (4) the opportunity to interact with ambulatory patients.² A study reviewing the Kansas experience found student opinion in favor of the program. It did not include data on career choice or location in relation to the program.³ Michigan has recently instituted a statewide preceptorship program to produce more primary care physicians. In this program, preceptors are provided formal instruction in two training sequences, one before they receive students and a second midway through the first student module.⁴ It is not known whether the Kansas experimental preceptorship will influence an increase in primary care physicians through the experience or through training. The program specifically recognizes that information about the problems seen in primary care has been missing from curricular offerings to medical students. This is largely due to the fact that during the last half-century, medicine and medical schools have focused on specific disease problems. The payoff has been the significant progress in the ability to solve medical disease problems. The equally significant but less dramatic illnesses produced as problems of living—comprising the bulk of primary care practice—have gone largely unnoticed in medical school curricula.

The job, then, becomes one of including in the educational process the knowledge required in primary care, so that for the physician it becomes an intellectual challenge. In this way, the problems of life become problems worthy of medical pursuit. Realization of the research potential of the preceptorship design should increase the flow of knowledge about primary care to the University for inclusion in the curriculum. Thus, the community physician in a primary care practice

becomes an essential ingredient in the educational process, inasmuch as it is he who has a monopoly on primary care experience and knowledge. An attempt on the University's part to teach preceptors how to teach primary care, while generating a degree of uniformity, runs the risk of diminishing expertise, particularly if the prevalent educational process is imitated. We recognize that the vast majority of primary care physicians do their job quite well, but not solely with knowledge gleaned from their formal education. It is this dimension in health requiring clarification of important issues and continued educational development that we wish to convey to the medical student.

The preceptorship, in addition, provides the medium by which the medical university can fulfill a supporting role for physicians in the delivery of primary health care. The communication linkages established allow for flow of information out to the physician as well. The community physician's inclusion in the University should make the University's resources more available to him. There should be a diminution in intellectual and medical isolation of the community physician, and it should be easier for him to seek and give advice within the system.

Summary

The Kansas experimental preceptorship is not designed to teach primary medical care in hopes that it will directly influence some students to practice in rural Kansas. In contrast, the preceptorship uses the excitement of the educational process to build communication linkages which allow for simultaneous inclusion of the community physician in the University setting and diminution of their intellectual and medical isolation. It is anticipated the attraction of physicians to the rewards of health management at a primary care level will increase as knowledge and concepts directly related to problems of primary care join the main current of the medical curriculum.

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115th Annual Session

KANSAS MEDICAL SOCIETY

May 5-8, 1974, Topeka

MODERN ASPECTS OF TRAUMA

1. Aeromedical Transportation of the Injured
2. Medico-Legal Aspects of Trauma
3. Symposium on Fat Embolism

The 1974 meeting will be held in conjunction with the following specialty societies:

KANSAS SOCIETY OF PATHOLOGISTS
KANSAS OBSTETRICAL AND GYNECOLOGICAL SOCIETY
KANSAS ALLERGY SOCIETY
KANSAS SECTION ON EAR, NOSE AND THROAT
KANSAS SOCIETY OF ANESTHESIOLOGISTS

Cancer Detection

Early Detection at the Center for Breast Disease

M. J. K. HUDSON, M.B., F.R.C.S. (Eng.),

ROBERT A. BOUDET, M.D., Ph.D., C. H. JOSEPH CHANG, M.D. and

LOREN J. HUMPHREY, M.D., Ph.D., *Kansas City, Kansas*

KANSAS UNIVERSITY MEDICAL CENTER has been chosen as one of 20 centers throughout the United States for a nationwide evaluation of methods for early detection of breast cancer. It has already been shown that routine screening of women by clinical examination, mammography, and thermography can detect a significant number of breast cancers before they are clinically palpable. What we need to know is to what extent such screening is practicable on a mass scale. The project is sponsored by the American Cancer Society and the National Cancer Institute.

Breast cancer is now the most common form of cancer in women. It accounts for 25 per cent of the total, and is the most common cause of death in women aged 40 to 45. It is the most common cause of cancer death in women over the age of 30. At the present time, over half the women presenting with breast cancer—and this usually represents those who have discovered for themselves a lump in the breast—will have at least microscopic evidence of spread to the axillary nodes and, consequently, a less favorable prognosis.

Since 1935, the death rate for women over the age of 25 has decreased by 42 per cent (from 15.2 to 8.8 per 1000).¹ These figures are age-adjusted, and include deaths from all causes. The disturbing fact is that in this time, the mortality from breast cancer has remained stationary at approximately 40 per 100,000 women. While there is good evidence that in this period the incidence has increased significantly,² and is accompanied by some prolongation of survival rate, the magnitude of the problem is in no way altered, and there are no grounds for satisfaction.

At Kansas University Medical Center, women volunteers enroll at the Detection Center for Breast Disease for a five-year screening program.

Eligibility

The Center accepts asymptomatic women over the age of 35 years who volunteer for the program. The sympto-

matic patient is defined for these purposes as one who has a lump in the breast and is recommended by her doctor to the hospital for further investigation and possible biopsy. Such a patient could attend the Center, but would be excluded from the statistical survey. At the time of writing (November 1973) the waiting time for an appointment is five months. Such a time is obviously too long for the symptomatic patient and it is recommended that she go through the normal outpatient clinic. Like-

A preliminary report of the new Detection Center for Breast Diseases at KUMC—one of twenty being organized around the country, to evaluate screening techniques for detection of breast disease—chiefly cancer. A presentation of the plans for selection of volunteers, and plans for operation.

wise, the woman who has discovered a lump in the breast herself is encouraged to see her own doctor.

Survey

The program undertaken by the patient is as follows:

1. Registration and signing of consent form.
2. Completion of patient history report: This is a comprehensive document running to some 255 questions which seeks such details as race, marital status, income, and education. Particular emphasis is placed on family history of cancer, history of breast disease, present breast condition, and whether or not the patient is on the pill, together with a complete obstetric, nursing, and menstrual history. In addition, the routine medical history is requested.
3. Film: The volunteer then sees an educational film on self-examination of the breast, and is recommended to undertake such examinations at monthly intervals during her participation in the program.
4. Clinical examination of the breasts: This examination is carried out by a registered nurse specially trained

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in this procedure. If she finds anything suspicious, she will call one of several surgeons on call for the center to confirm her findings.

5. Blood sample: A blood sample is taken and analysed for the presence or absence of antibodies to breast cancer antigen. This is not part of the national program, but an extension of the Kansas Breast Study, being carried out under the direction of this department.

6. Mammography: This plays a very important role in the detection of breast diseases, especially early cancer. It involves soft tissue x-rays of the breast taken in craniocaudal, lateral, and retromammary views, using a compression technique. Patients are warned that the compression can cause a certain amount of discomfort or pain in some, especially if they have a tendency to experience such symptoms at other times. The possibility of radiation hazard is very much a theoretical one, albeit one of which we must be mindful. Modern coning procedures have practically eliminated the scatter of rays. The total dose per screening (6 films) is approximately 20 rads,³ although we are about to change the technique to use low dose film which will cut the dose down to about 2.5 rads. Women who are pregnant are excluded from mammography, as are those who have had a mammogram in the previous six months, although they may attend the remainder of the screening program.

7. Thermography: This is a means whereby the heat emission from the breasts is recorded by an infrared scanning technique on Polaroid or 70 mm film. The patient sits uncovered to the waist for a short period of time to allow the skin temperature to equilibrate with the surroundings, which are kept constant. Pictures are then taken in anteroposterior and oblique views. Increased heat emission can be produced by any form of breast disease and is not specific for cancer. It will, however, draw attention to an abnormality which needs to be carefully scrutinized. Thermography thus represents an ancillary investigation to mammography, and combination of the two will increase the accuracy of diagnosis. Thermography may be valuable in followup of patients once base line studies have been made.⁴

Coordination of Results

In each of the three examinations, the examiner records the results without the knowledge of the other two findings, and is also asked to record the degree of confidence in his report. The combined reports are then reviewed by one of the project coordinators, who will make recommendations as to further action. He may, at this time, speak with each of the examiners and obtain revised opinions when they know other facts. The patient is then informed of the results of the screening.

Letter 1: This letter is sent to the patient when all

findings are normal and the patient is advised that she will be recalled for repeat screening in 12 months' time.

Letter 2: This is a request for recall earlier than a year, usually six months. It states that there is no evidence of cancer on the examinations, but there are changes of a benign nature which require further evaluation at a later time. The majority of these women have an abnormal thermogram, the clinical and mammographic findings being negative. Alternatively, the mammogram may show significant fibrocystic disease. Recall may be advised in a shorter interval, even four weeks, if there is any degree of suspicion in the findings not sufficient to recommend biopsy. In the latter instance, a repeat thermogram is reviewed before deciding whether or not to repeat the mammogram, thereby reducing unnecessary exposure to x-rays. A copy of letter 2 is sent to the patient's physician for his information in case the patient should wish to consult him.

Letter 3: This states that there are sufficient findings to recommend a breast biopsy, pointing out that the majority of biopsy results are benign. The patient is advised to make an early appointment to see her physician, and it is his decision and that of the surgeon to whom the patient is referred as to whether biopsy is performed. The physician is sent a letter informing him of the findings in advance of the patient's appointment and, where possible, he is also contacted by telephone. The mammograms are sent to the physician on request.

Subsequently, the center contacts the patient to find out if biopsy is being performed, where, and by whom. The pathologist who will be reporting on the histology is contacted and asked to complete, as far as possible, a special report form and return it, together with his own report and the histology slides, to the Detection Center. These slides are returned to the pathologist in the same way the mammograms are returned to the center upon completion of review. When all the information about a particular patient is gathered, copies are shipped off to the project headquarters in Philadelphia.

Objectives

The main objectives of the project are early detection of breast cancer and a reduction in mortality. The various methods of detection will be studied to find the best means of doing this on a wider scale. At the same time, data from the questionnaire will be studied to determine any other disease factors related to carcinoma of the breast.

It will be humanly impossible to make the screening program available to the whole female population above the age of 35 or even 40. It will, therefore, be necessary to start by concentrating on those we know or suspect to have an increased risk of developing breast cancer.

These are as follows.

1. A history of previous mastectomy: Such a patient's chances of developing a primary carcinoma in the other breast are significantly higher, being estimated at 7 per 1,000 per year,^{5, 6} and even higher in those under 50 years of age.

2. Those with a family history of breast cancer.^{7, 8}

3. The single and nulliparous married woman: The increase here is probably not more than double.⁹ Breast feeding has long been considered to convey some protection from breast cancer, but this is more significant when nursing has been carried out for more than 36 months.¹⁰ It has also been suggested that women becoming pregnant before the age of 20 have a decreased risk of breast cancer, as compared to those becoming pregnant for the first time after the age of 25.¹¹

4. Fibrocystic disease: Fibrocystic disease is considered by many to be associated with a higher incidence of malignancy, which may not necessarily be in the same breast. Such women present a diagnostic problem and require careful followup in any case.

5. Long-term estrogen therapy: While there is no definite evidence to connect this with an increased risk, the numbers of women on such therapy have, until recently, been small. The advent of the contraceptive pill must be accompanied with greater surveillance.

6. Endocrine disorders: Other disorders such as thyroid disease and diabetes have been implicated by some. It is hoped that the present project may help to elucidate some of these factors.

Future Developments

The present plan at the Detection Center will involve screening 5,000 new patients in each of the first two years, and followup of each patient for five years at the Center and for five additional years by mail.

Future developments envisage the more widespread use of xeroradiology, a technically more difficult procedure requiring a longer x-ray exposure time than the conventional mammogram, but producing more easily and rapidly interpretable films with sharper definition of the tissues. Thermography may be combined with infrared photography, and by using a subtraction technique with a computer, the number of false positives could be reduced. Screening of the urine for abnormalities of hormone excretion may help to identify some of those at risk,¹² and similarly, a blood test along the lines of that being investigated here for antibodies to a tumor antigen may become a practical possibility.^{13, 14}

The initial results from those centers where early detection has been already studied along these lines are

encouraging.¹⁵ Strax,¹⁶ from the Guttman Institute in New York, reports that of 44 women with breast cancer not palpable clinically but discovered by mammography, thermography, or a combination, 43 are alive at five years of followup. He found that 13 per cent of cancers would have been missed if mammography had been omitted, and 33 per cent if clinical examination alone had been performed. Egan¹⁷ has demonstrated that of those patients with unsuspected breast cancer found by mammography, the axillary nodes were free of metastases in 92 per cent. This does not mean that the clinical examination is unnecessary, for Strax also reported 19 per cent found by clinical examination only, which were not found on mammography, and the majority of these had negative axillary nodes. Each of the three main modalities (clinical examination, mammography and thermography) therefore, picks up cancers that the others have missed and none can be omitted from the screening program, at least in the present state of development.

The aim at the Detection Center is a close liaison with family physicians, surgeons, and pathologists. Not all of our findings or recommendations will be confirmed. Attendance at the Detection Center does not obviate the need for breast examination at other times, for a breast cancer may be discovered between visits to the center. As a newborn child in Kansas, the center seeks the indulgence of its parent community.

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Postgraduate Field Staff

Functions at KUMC

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PRESENT DAY medical educators are faced with the disconcerting fact, that the body of medical knowledge is so vast that it is simply impossible to impart to their students during the period of formal training which includes the undergraduate years, the internship and the residency, any more than the bare fundamentals of medicine. Not only is it impossible to prepare students fully for any of the fields of medical practice, but the rapidity of increase in medical knowledge soon renders even the best medical education obsolete. For these reasons it has, in recent years, been increasingly apparent that all physicians must continue their education as a lifelong process. One might say that the doctorate degree in medicine is merely a license to embark upon a lifetime career in the study of medicine. It is perhaps some consolation to medical educators that they need not, when designing their various programs, attempt the impossible—producing finished products at the end of any of the steps of the formal process of education.

When seen in this light, it becomes obvious that continuing medical education, which is at last beginning to receive the attention it deserves, will of necessity become increasingly important. Professional medical educators have an obligation to provide leadership in the continuing education of physicians. This means that medical faculties, especially those in tax supported schools, owe it to the public and to the profession to assume the primary responsibility for this phase of education. They, as professional educators, are the only ones in a position to give it the attention it deserves. Furthermore, physicians look to medical schools as a prime source of authoritative information. If medical schools are to make their proper contribution, it is essential for them to make a major commitment to continuing medical education and this means, among other things, that the schools must make a significant financial commitment. The commitment of the medical school must include the establishment of a basic organization. It has repeatedly been demonstrated that continuing education is not administered with maximum efficiency or effectiveness by a committee or by an assistant dean, who has it as one of his many assignments.

The experience of successful programs in continuing

medical education indicates that the basic organization for such a venture includes the full-time services of an academic chairman who should be a physician, and that this chairman can be most effective when assisted by a full-time executive secretary. There must be an office staff, audiovisual personnel, and others who help attend to the details of the program. Finally, and this is the

It is the obligation of medical schools to assume their full share of responsibility for the continuing education of personnel involved in health care. In order to do this, a basic organization devoted to this activity is of the highest importance. In addition to the basic administrative personnel, experience has indicated that the department—or, more properly, medical school—field representatives are not only helpful but are virtually essential.

major subject of this paper, the continuing education organization needs field representatives to serve as representatives not only of the continuing education division but of the entire medical school.

The Department of Postgraduate Medical Education at the University of Kansas Medical Center has two of these representatives, or "detail men," and they have proved to be of great value. Their activities are perhaps best outlined in two major categories: (1) out-state duties; and (2) functions performed on-campus.

One of the major out-state activities of the field representatives is to visit the health professionals and hospitals in the immediate area of responsibility of the medical school in order to promote circuit courses, symposia, and other continuing education activities. While doing this, they also serve as personal representatives of the medical school to the health professionals of Kansas. They answer questions concerning not only postgraduate courses but all activities of the medical school. The field representatives often attend such meetings of organized medicine as the annual session of the Kansas Medical Society and the meetings of the state chapter of the American Academy of Family Physicians. At such times,

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they not only promote the postgraduate programs of the school but also continue their public relations functions.

Contacts with health professionals other than physicians are made through people employed in physicians' offices, in hospitals, and through the various professional and voluntary health organizations in the state. In this way, the field representatives are able to promote the postgraduate programs which are presented for health professionals other than physicians, and also to extend their public relations activities into these fields.

Kansas has long been known for its Circuit Course for Physicians which, although it accounts for slightly less than 15 per cent of our total physician enrollment in continuing education, continues to be exceedingly effective as an educational venture both for the students and for the faculty. It represents a major manifestation of the partnership between the medical school and the physicians in private practice. It is obvious, therefore, that our field representatives must spend much of their time in connection with these off-campus circuit programs. For these programs they make preliminary arrangements with medical organizations in the various areas of the state; and, taking into consideration the wishes of the potential student body as well as the medical school, they make all arrangements for facilities for the programs. This includes not only reserving appropriate meeting rooms (preferably in a hospital or educational facility), but also arranging for lodging and meals for the faculty team in each circuit center.

A recent innovation in off-campus programming is the Kansas Circuit Course for Nurses. Administratively, these programs are conducted in much the same manner as those of the Circuit Course for Physicians. However, the academic content of these programs is prepared with an eye to stimulating the interest and meeting the professional needs of nurses. These programs help to further cement the rapport between the Medical Center and the health professionals throughout Kansas.

Anyone who has presented a program, or even a lecture, away from his own institution knows that it is hazardous to depend upon materials and equipment being furnished locally. It is, therefore, the field representatives' duty to prepare, assemble, and transport all needed equipment from the medical school to the places at which programs are to be presented. The field representatives, after they have loaded their vehicles with this equipment, pick up the members of the faculty and undertake to deliver them safely and on time to the towns at which programs are to be presented. Here they check faculty members into their motel or hotel, and see that they are adequately fed before delivering them and the equipment to the meeting place. The field representatives then prepare the meeting room, and set

up the equipment and promotional materials.

During the educational program, the field representatives act as the masters of ceremony and projectionists, and handle the inevitable multitude of details so that the faculty is not bothered by minutiae. In addition to all this, they take care of enrolling, collecting fees, and keeping attendance records. At appropriate times, they promote other programs in continuing education offered by the Medical Center, and—as always—continue their public relations work.

Not all phases of education are pure work. The field representatives also take charge of arrangements for social functions that may take place following the presentation of the educational program. This requires finesse, since these arrangements must satisfy not only the enrollees, but also the faculty members if a cordial feeling is to be fostered between practicing health personnel and their academic colleagues.

Health professionals in general, and probably those in education in particular, are often impatient with governmental red tape, and the field representatives are helpful to them in keeping their expense records and making out expense vouchers for them.

In addition to the off-campus programs, on-campus activities necessarily occupy a significant amount of the field representatives' time. Among their primary duties at the end of the academic year are the analyses of enrollment statistics and the planning of a schedule of visitations to physicians for the next year. The field representatives also give invaluable help in presenting on-campus courses. They assemble teaching materials and special equipment for each program, and they test and inspect audiovisual equipment to be certain that everything is functioning properly before each course begins.

During the presentation of formal courses, the field representatives monitor the audio equipment, help faculty members with their slides, motion picture films, and see that the projectionist has all of these materials and the proper instructions for their use. They also help supervise coffee breaks and meal breaks, so that enrollees are served promptly and returned to the auditorium at the proper time. Field representatives also relieve the registrar and other personnel of the postgraduate office. They may be called upon to meet guest speakers at or deliver them to the airports. As always, they continue to promote other postgraduate programs, and—almost unconsciously—serve their public relations functions.

After courses have been completed, the field representatives perform the necessary statistical operations for the self-analysis, which is so important to the department, and help gather and arrange material for the

(Continued on page 97)

Human Ecology and Physician

Guidelines to Cultural Experience Relevant to Health

ETHEL NURGE, Ph.D.* and W. K. Ng, M.D.,** *Kansas City, Kansas*

BEHAVIORAL SCIENCES, it has been said, can make a contribution to the education of physicians and other health personnel in several areas. Those trained in anthropology, psychology, and sociology can add to the effectiveness of the preparation of health practitioners in the following ways: (1) Extending the established findings of the field of human behavior to the scientific orientation of medicine. This can be done at the individual and group levels of analysis and prediction. (2) Extending the art (orientation and action based on theory and hypotheses) of the practitioners in human behavior to the art of the practice of medicine. (3) Helping physicians and other health personnel improve and extend their preventive, diagnostic, therapeutic, and rehabilitative skills. Cross-cultural perspective on these matters is currently lacking and this is where the anthropologist can help. (4) Improving the learning process for student health practitioners during all stages of their professional career. Psychologists particularly have much to offer here. (5) Assisting individuals to adapt to rapidly changing organizational, community, and cultural environments. While we must all learn to adapt to change, the task is more difficult for some than for others, and is more crucial for those with increased responsibility. (6) Bringing the perspectives and expectations of consumers of health care into the realm of medical education in order that students and faculty can more effectively understand and deal with patient care problems. Consumer perspectives, expectations, and rights are gaining in importance and are more prominent today than ever before. (7) Identifying more precisely the behavioral patterns that intersect with biological processes in human health and illness. This is a vast field encompassing much study and research. (8) Helping health practitioners to develop sensitivity in observation, validity in interpretation, reliability in documentation, and accuracy in prediction of their own behavior and the behavior of others. (9) Teaching physicians and other health personnel how to discriminate effectively between universal, partial, and idiosyncratic levels of generalization in the patterning of human behavior.¹

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At the University of Kansas School of Medicine, a unique department, the Department of Human Ecology, brings together persons with diverse abilities, among whom are physicians and behavioral scientists. Among the physicians are pediatricians and an epidemiologist. Among the behavioral scientists are a sociologist, several psychologists, and an anthropologist. Other specialists

Culture interposes a screen of perception and interpretation at every level of illness and treatment behavior. Some of the social factors relevant to sickness and health are discussed.

are an economist, a nutritionist, and a systems analyst. A course called "Clinical Process" is coordinated by one of the physicians and includes much data from behavioral scientists. It is taken by all medical students in their first year. The department as a whole has service, research, and teaching interests.

In addition to the course for all entering medical students, the Department of Human Ecology offers many electives. Among these are some which enable the students to gain experience in behavioral science aspects relevant to being a physician or a nurse. One such elective is a combination of anthropology and pediatrics, which involves the students in pediatric service in another culture (*Table I*). For a syllabus for that elective, the authors devised the charts below. Based on our experience in developing the charts and from the experience of its use with the first students who took the elective (a husband-wife team who worked with the Navajos and the Spanish Americans of northwest New Mexico), we have written this article.

When a student goes into another cultural setting to learn as much as he or she can about the social and environmental factors affecting health, one is tempted to say all, everything, is important. And, in a large sense, it is true: All is important. Still, the time to be spent in another cultural setting is limited and the student must have some signposts, some indicators, as to what are the circumstances and conditions he should look for which are pertinent.

TABLE I
DISEASE, ENVIRONMENTAL, FAMILIAL AND SOCIAL FACTORS

<i>Disease</i>	<i>Agent</i>	<i>Mode of Transmission</i>	<i>Environmental Factors: Natural Setting, Man-Made Artifacts</i>	<i>Biological Factors and Social Arrangements in the Family</i>	<i>Beliefs and Behaviors Relating to State of Well Being, Illness, and Therapy</i>
I. Infectious Diseases					
Measles Chicken pox Diphtheria Tuberculosis	Virus Virus Bacteria Bacteria	Respiratory Respiratory Respiratory Respiratory	House type, size and room arrangements, number of persons per room or house; sleeping arrangements, presence or absence of recreation areas; ventilation.	Family size, type and composition, age-sex distribution. Economic status. History of previous attacks. Siblings and adults with disease in home. Availability and accessibility of immunization. Immunization rate.	Amount and kind of contact in household, outdoors, at school, religious ceremonies and large gatherings. Attitude toward immunization. Are shots valued? To be avoided? Ideas about the disease. Deliberate exposure? Home remedies. Different treatment for men and women?
Typhoid fever	Bacteria	Oral	Is general environment clean and sanitary? Water supply and source clean? What system of refuse disposal? Flies? Excreta disposal adequate? Purification of water? Pipes, electricity.	Same as above.	Patterns of water ingestion. Care of cooking utensils and implements. Methods of cooking and serving food. Ideas about feces. Magical use of feces.
Dysenteries Amoebic Bacillary	Protozoa Bacteria	Oral Oral	Distance between latrines and water supply, storage vessels for water, ladles, how is water drawn? Agencies involved in testing and purifying. Halazone pills? Fuel for boiling?	Same as above except immunization. Other sources of contamination: rotting foods, baby or animal feces. In fruit season, is fruit exposed to dust and flies? Disposal of excreta. Who prepares food for whom? Wife or mother serves and cleans up? Whose task is it to get water?	Food preparation, service, storage and reuse. Hygiene of food handlers. Use of untested or impure water. Ideas about water and sewage. Defecating in undesignated areas, i.e., bushes, bamboo grove.
Trachoma	Virus	Contact	Involved are the house and water supply. Overcrowding. What are the bathing facilities? Is the body dried with a towel used by several people? Personal hygiene good? Is dirt and dust raised by wind or excavation?	Family size, type and composition, age-sex distribution. Economic status. Hygiene of mother, father, child, etc. Blindness in family. Concomitant eye ailments. Availability and accessibility of treatment facilities.	Minor infections are not considered disease or worthy of note. Swimming in polluted rivers, streams, or lakes. Beliefs about eyes, vision, and disturbances to same.
Dermatitis Bacterial Fungal	Bacteria Fungi	Contact Contact	Same as measles. Dirt and dust in the environment. Flies and irritating insects. Personal hygiene, especially nails.	Economic status, nutritional status, education, pattern of play or work in dusty environments. Availability, accessibility and use of simple treatments such as antiseptics.	Sores common and not considered a disease, thought an inevitable part of child raising. Belief that it will heal by itself. Beliefs about the etiology of the sore. Indigenous therapy.
Hookworm Ascariasis	Helminth Helminth	Contact Oral	Water supply, system of excreta disposal, adequacy and use of latrines. Areas contaminated by defecation habits. Dense population, communal living, multiple activities under one roof with inevitable contamination of soil.	Children crawl on the floors, bare feet for all age groups, use of human excreta as fertilizer.	Beliefs about hookworm and ascariasis—its etiology, symptomatology, and therapy.
Syphilis	Spirochetes	Sexual contact	Water supply, general sex hygiene and care. City, urban differences.	Pre and extramarital intercourse, several sexual partners, prostitution, mobility of occupation.	Beliefs and rationale for prescriptions and proscriptions about sex.
Gonorrhea	Bacteria	Body	Same as above.	Same as above. Connected with alcoholism or drug addiction? Connected with social life outside of the family, or recreation?	Same as above. Attitudes toward family planning and sex education for the young. Beliefs about folk medicine and home remedies.
II. Nutrition Deficiency Diseases					
Iodine deficiency	Iodine deficiency	Lack of food and nutrients	Hill and mountains with iodine deficiency. Scarcity of food. Soil inadequate for agriculture. Natural resources inadequate for good diet.	Goiter is in the community. What is the distribution between adult, children and old people? Are the incomes adequate? Are there priorities in feeding?	Is goiter recognized as a disease? What are the beliefs about it?
Malnutrition Protein-calorie deficiency	Nutrient deficiency, poverty and hunger		Soil deficiencies. Inadequate resources for balanced diet. Absence of balanced diet in some seasons. Inadequate protein source. Natural calamities and disasters. Problems with transportation because of terrain. Lack of a cash crop.	Single unit (family) feeding vs. communal feeding. Daily diet vs. festivity diet. Is protein given in greater quantity to male? What are infants and young children fed? When are they weaned? Is there restriction of food in pregnancy, lactation, menstruation, during or after illness or before rituals? Are vegetables and legumes consumed disproportionately? Is there induced vomiting?	Beliefs about the origin of different foods, their nature, how they must be treated, prepared, consumed and disposed of. Are there sacred foods? Starvation foods? Forbidden edibles in the environment, etc.

One goal of the elective in anthropology and pediatrics is to sensitize students to environmental, familial, and social factors as they intersect with disease. We have adopted a disease orientation as a reference point because disease and pathology are the focal concern of medical students. Also they are taught to think in terms of "systems," and to make system reviews when they take a medical history. We have, therefore, devised charts which are organized vertically in terms of infectious diseases, nutritional deficiencies, and diseases by organ systems. A fourth category of "other diseases" includes alcoholism and drug addiction (*Table II*).

Standard public health training will alert the student to look for conditions of sanitation and infection. Standard anthropological training will alert the student to look for inter- and intrapersonal relations relevant to infection, trauma, the definition of illness and health, and the experience of being ill. These factors may be divided into three categories: (1) environmental, including the natural setting and man-made artifacts; (2) biological factors and social arrangements in the family; and (3) beliefs and behaviors relating to a state of well-being, illness, and therapy. These are the categories

which form the bulk of the chart; and on a horizontal axis are the last three columns.

For an example of the use of the chart, let us consider that many of the diseases which are common now among other cultural populations are preventable. For instance, they have a preponderance of infectious disease, and knowledge of the conditions surrounding and perpetuating those diseases is necessary in order to be successful in an effort to prevent them. Let us consider some of the guideposts indicated on the chart and how they lead into social factors.

Of the infectious diseases (measles, chicken pox, and diphtheria), note that the environmental factors important for all of them concern space, light, ventilation, and density of occupation. Translating these environmental factors into social or cultural ones, one would ask, what is the common type of house. Taking the Navajo as a case in point, we note that they traditionally lived in a hogan, a rounded or eight-sided building with an earthen floor, a smokehole, and a door facing east. Many adaptations of the hogan exist today, but the basic structure makes it difficult to maintain the sanitary conditions necessary for the prevention of disease. Today, the

TABLE II
DISEASE, ENVIRONMENTAL, FAMILIAL, AND SOCIAL FACTORS

<i>Disease</i>	<i>Environmental Factors: Natural Setting and Man Made Artifacts</i>	<i>Biological Factors and Social Arrangements in the Family</i>	<i>Beliefs and Behaviors Relating to State of Well Being, Illness and Therapy</i>
III. Disease by Organ Systems			
G.I. System	Housing, water, food animals and existing disposal system.	Food sharing. Portions and content for father, mother, children and baby. Time and place for eating.	Patterns of food procurement preparation, distribution and consumption. Daily, ceremonial and therapeutic diet. Theory of digestion and home remedies for digestive ailments.
Cardiovascular System	Quality of water and use of water supply. Presence and excessive use of salt in the environment. Stress to survive such as in hilly terrain.	Age. Sex. Previous infection. Hereditary or congenital. Cholesterol intake. Amount of physical exertion. Worry and anxiety. Amount of fat in the diet.	Beliefs about salt or fat intake, work, and exertion in sport. Salt as an aphrodisiac. Home remedies.
Renal System			
Genital System	No or poor facilities for washing or douching. Presence or absence of family planning, diagnostic and treatment facilities.	Contraceptive use. Age at menarche and menopause. Menstruating women isolated, use Kotex, or what? Use sweat bath? Role of mother and grandmother regarding sex relations.	Attitudes: toward menarche, menstruation, menopause. Are women's ills no concern of men? Are women shy, isolated, uninformed? Ideas about infertility and sterility.
Trichomonas			
Moniliiasis			
Skeletal System	The physical environment connected with daily life. Uneven terrain, cliffs, crevasses, rivers, bogs, accident traps, unsafes houses and other structures. Wild animals. Stock on the road. Snakes.	Males may run, climb, rappel, gallop horses, drive fast, or hunt wild animals. Women work in hazardous conditions. Lack of knowledge of hazards and rules of safety. Care of injured, crippled or paraplegic.	Stoic attitude. Ideas about bravery, courage, success and manhood. Broncho rider. Fast car drivers. Pain thought of as penance, necessary to receive grace or to merit attention from guardian spirit. Safety not an ideal.
Congenital Hip			
Accidents			
IV. Others			
Alcoholism	Rural or urban. Presence of substance to make alcohol from native materials. Ease of purchasing commercial alcohol.	Anxiety, worry, old age, sexual frustration, poor economic status. Manufacture of native alcohol. Pattern of use: sporadic, continuous or excessive. Do children and women drink? Ceremonial drinking?	Drunkenness believed manly, drunken behavior talked about admiringly. Drunken euphoria valued.
Drug Addiction	Presence of tobacco, peyote, marijuana, aspirin, tranquilizers, etc. Facilities for procurement or purchase.	Anxiety, worry. Age and sex differences in use. Presence of technology to manufacture drugs. Social occasions for drug use.	Behavior under drugs valued for diagnostic, prophetic purposes, or achieving a high. Drugs used in religious ceremonies or in native curing.
Psychological Stresses	Sparsity and scarcity of necessities of life. Harsh environment. Minimal resources. Terrain difficult to impossible to farm.	Family is non-supportive and source of conflict and strain. Absence or shortage of necessities increases discontent, disharmony, frustration and conflict with neighbors and others.	Reasons for suicide, buffer against suicide, power base of community, pressures to suicide like in Japan.
Nervous			
Suicide			

Navajo have two other house types: one, a frame structure indistinguishable from millions of others in America; and two, the Navajo are beginning to buy and use housetrailer or mobile homes. In using the last, they make a large leap to a new life style, because they get an interior furnished and equipped with modern appliances. The point is that the hygienic measures possible and the level of cleanliness probable differ with different house types. The water supply and water supply problems are independent of the house, but in a hogan, there is no way to introduce and control running water. On the other hand, a trailer comes with a water hookup, a sink and a tank for heating water, and the whole can be easily connected to a running water supply.

For another example, a patient suffering from gastroenteritis who has reached the hospital system either as an inpatient or an outpatient should initiate in the physician or the nurse, thought about a train of circumstances relevant to gastroenteritis. It may be helpful, in giving comprehensive care to the patient, the family and the community, to consider the following possible circumstances.

The patient may be one of many members of the family or community currently infected with disease. He may have drunk from a communal water supply, used shared sanitary facilities, and eaten from a common pot—or, at least, shared food. The physician and nurse should be aware of these factors in order to detect other current cases of disease and to prevent further occurrence of the disease in the community. Health personnel should further ask, why has this particular patient come to the hospital while others have not. Perhaps it is considered unmanly to be sick. Perhaps women are considered by nature to be weak and sickly. It is necessary, therefore, to understand that social and cultural attitudes to perceptions of health and disease differ among ethnic and cultural groups. The diversity and intensity of symptoms from a particular disease necessary to motivate a person to seek medical care differ; the significant other influences upon a person (to stay at home, to try home remedies, or to seek help in the hospital) need to be investigated. It is helpful to understand the attitudes of peers, nuclear family, and more distant relatives before the health personnel can know who may not be in the clinic but who may be ill, and who ought to be in the clinic. It is helpful to know who in the family or kin group is likely to be giving advice, home treatments, or urging the sufferer to go to the clinic. Finally, the patient's values, level of education, and store of information are other important factors both in determining his health status and influencing him when he seeks medical care.

In *Table I*, which covers infectious and nutritional

diseases, it was possible to relate the disease, the agent and the mode of transmission to environmental, familial, and social factors, but for disease by organ systems, the agent is not singular and the modes of transmission are complex. Therefore, we continue with a simplified chart, omitting the agent and the mode of transmission (*Table II*).

Traditionally, modern medicine does not take into account the native conception of the world, what some anthropologists have called the "world view," when dealing with ethnic or cultural minorities. Little attention is paid to what particular patients of different cultural origin believe about symptoms, cause of illness, nature of illness, and the nature of treatment or therapy. In Western medicine, a series of symptoms are grouped together and called a certain disease. There is very little chance that the same grouping of symptoms will have a similar meaning to the members of another culture, or that they can and will accept any explanation of their illness which is too far removed from their culturally taught understanding. We are dealing with more than "ignorance" or what is too often slightly dismissed as superstition. By failing to learn what are the culturally conditioned beliefs and practices of any patient, we may misinterpret what they tell us about symptoms, and also fail to help them by prescribing treatment doomed to be disregarded because it is misunderstood, incongruous, meaningless, or contraindicated in the patient's world view.

To add to the difficulties of a Western physician practicing in a non-Western setting, the medical relevancy is determined culturally. What is medically relevant in Western medicine, is a theory based on the existence of bacteria and viruses, and a conglomerate of symptoms which add up to a certain diagnosis. However, for the Navajo medicine man, illness is caused by an infraction of the rules of human conduct. For example, washing of hands before eating is a necessary part of hygiene in Western culture. It is irrelevant to the Navajo. Moral conduct is not important to the Western physician; it is very important to the Navajo medicine man.

The very basic and beginning action of an MD taking a medical history, puts him in an unfavorable light in the eyes of many Navajo. The Navajo have two classes of therapeutic practitioners. The first is a hand trembler, and he is the diagnostician; the second is the medicine man or singer, and he is the therapist. When the Navajo go to the hand trembler, he studies the patient and his situation and awaits an inspiration as to what the problem is. He does not ask questions. So again, unfortunately, the MD looks less than able to the Navajo, because he asks questions. The Indian, on the basis of life-long experience in his own culture, expects

a diagnostician to know what is wrong with him by looking at him and awaiting inspiration, and not by asking, "What seems to be the problem?"

If Western healers have had the handicap of working through a screen of cultural distortion, they also have had the benefit of extensive and rigorous training in their own culture; they have special abilities and some of these become obvious to members of other cultures despite quite disparate expectations of behavior and performance. The white man brought his own diseases (tuberculosis, for example) to indigenous cultures, but he is successful in curing tuberculosis while the medicine man is not. While Navajo singers do not agree with physicians on the cause for tuberculosis, they do know that they (the singers) cannot cure tuberculosis and they send tuberculosis patients to the white medicine man. The referral system is unofficially at work.

Very frequently, what is practical and sensible in Western medicine, brings unexpected problems and unacceptable solutions to the Navajo. For instance, consider the problem of congenital hip. Congenital hip disease is present at birth and is characterized by an acetabulum that does not securely grasp the head of the femur. Consequently, the femur may move completely out of the socket, or it may be seated insecurely within the socket and predispose the joint to later excessive trauma. Sometime between the ages of 30 and 50, the man so afflicted may develop a painful, refractory, traumatic osteoarthritis in the joint. He begins to walk with a limp and eventually has severe arthritis for which nothing can be done. Good preventive medicine, then, depends on early diagnosis and treatment.² At present, this means surgery. Surgery produces a strong but nonflexible hip joint. Many of the families on the reservation still live without modern furniture. Having no tables or chairs, the families sit on the floor to take their meals and for their informal socializing. When a child has had surgery to correct a congenital hip, he is stiff-legged and it is not possible for him to sit crossed-legged or to squat on the floor. He cannot ride horseback. He has become a trouble to everyone in the family, as well as to himself. It is no wonder that many such

patients do not accept surgery as a treatment or a solution. They are not worried, while still young, by the possibilities of the trouble they will have with a congenital hip disease when they are 40, similarly as the white young smokers will not think about cancer, emphysema, or other disorders related to smoking, which will not become noticeable for two, three, or four decades.

We have been concerned in this paper with some of the social factors relevant to sickness and health. At every level of sickness and treatment behavior, culture interposes a screen of perception and interpretation. We have presented two charts which were compiled as part of a course in which the student works in another culture, and we have taken examples from the Navajo experience of how differing interpretations of the same phenomenon can effect the course of sickness and treatment. Perhaps the examples illustrated have been sufficient to give an indication of the complexity and variability of cultural factors in illness and therapy. Perhaps, too, the examples given illustrate how the charts can be used to sensitize readers to cultural factors. All the factors in the charts are suggested in shortened or categorical form. The guide chart is not intended to and, indeed, cannot be exhaustive. It is not possible with such a reductionist technique to include many details. Also, the chart is not determinative. We have not arbitrarily listed conditions which inevitably lead to disease; rather, we sought to indicate possible connections. It is expected that the student will add to the factors in the charts, as his observations prolong and experience accumulates. Indeed, as he continues his residence with and deepens his understanding of a different ethnic group, we expect that he may add to the knowledge of the cultural aspects of sickness and health in the particular community in which he works.

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CHRISTIAN MEDICAL SOCIETY

A meeting of the Christian Medical Society is being announced for Saturday, March 30, 1974, to be held in the Medical Society of Sedgwick County Building, Wichita, beginning with dinner at 7:00 P.M.

Donald Campbell, M.D., of Dallas, will be the speaker.

For further information and reservations, please contact Paul A. Baumann, M.D., Wichita: (316) 683-3435.



Cancellous Bone Grafting

Posterolateral Approach to Union Problems of the Tibia

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UNION PROBLEMS of tibial diaphyseal fractures are not uncommon, particularly after severe injuries with extensive soft tissue damage and local sepsis. This paper deals with a method of securing union of these fractures, utilizing a posterolateral operative approach and autogenous cancellous only bone graft.

Technique

The anesthetized patient is placed in the prone or lateral position on the operating table. The skin incision is made longitudinally on the posterolateral aspect of the leg, approximately 1 to 2 cm posterior to the fibula and parallel with it (*Figure 1*). The length of the incision should be determined by the extent needed to expose 4 or 5 cm of bone above and below the fracture site. After the subcutaneous tissue is divided, the deep fascial plane between the gastrocnemius-soleus group and peroneal musculature is identified and developed with sharp dissection (*Figure 2*). The fibular origins of the flexor hallucis longus and soleus are reflected subperiosteally. Dissection is continued, reflecting the origin of the tibialis posterior muscle from the

interosseous membrane. The tibia is then exposed the desired length by dissecting the remainder of the tibialis posterior origin and the flexor hallucis longus origin from the tibia. This leaves the flexor hallucis longus and posterior tibialis visible in the posterior portion of the wound, and the fibula and peroneal muscles in the anterior portion (*Figure 3*).

As the fracture site is exposed, care should be exercised not to disturb the fibrous union or penetrate the interosseous membrane, since this is unnecessary to achieve successful union and may exacerbate any old or latent infection. Small shavings of the posterior cortex of the tibia above and below the fracture are then raised with an osteotome. This preparation of the operative site is extended to include the medial cortex of the fibula. Small strips of autogenous cancellous bone grafts obtained from the iliac crest are then packed over the prepared bone surfaces and adjacent interosseous membrane. The deep fascia overlying the musculature is loosely closed with a few interrupted absorbable sutures to keep the bone graft in place, and the skin is closed in a routine manner.

Clinical Experience

In the seven-year period, 1966-1972, we have treated 22 patients with 23 operative procedures as described above. Union was established between three

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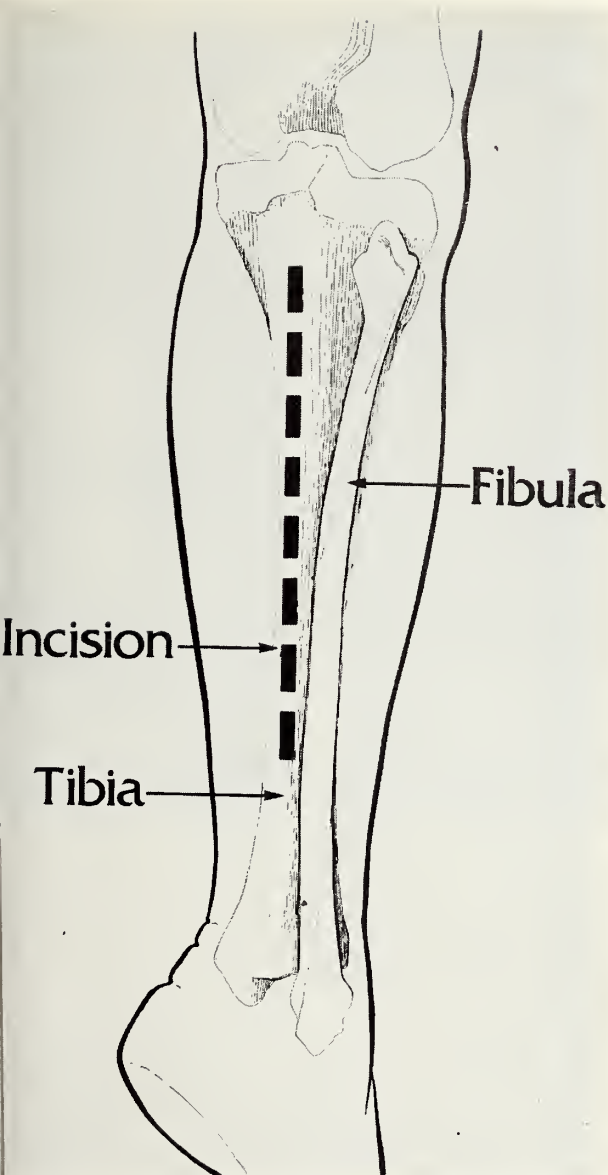


Figure 1. Skin incision on posterolateral aspect of the leg approximately 1 to 2 cm posterior to the fibula and parallel with it.

and eight months in 22 of the 23 cases. The remaining case was an infected fracture, approximately 3 inches above the ankle joint, which has not united in 38 months since the grafting procedure. Two of these patients had a large segment of tibia missing, and one had an established congenital pseudoarthrosis of the tibia. Four patients had infected delayed unions with previous operative treatment. Eight fractures with delayed union had significant soft tissue loss. Eight fractures were closed injuries, but in four of these there were multiple injured extremities.

Complications were few and most were minor. Fol-

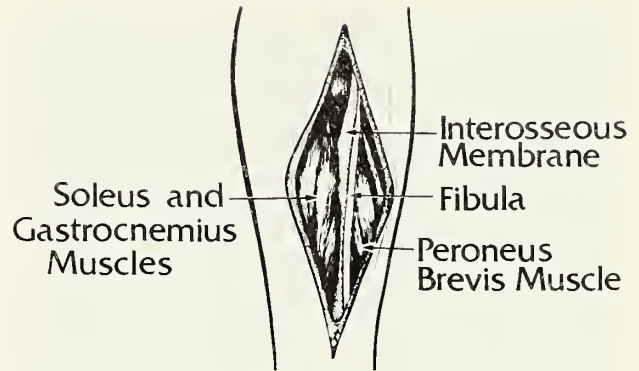


Figure 2. The border of the fibula has been exposed by developing the fascial plane between the gastrocnemius-soleus group and peroneal musculature.

lowing the operative procedure, one patient had a gram-negative septicemia which responded to appropriate antibiotics and supportive measures. There were three superficial wound infections (all in previous infected cases) and one non-infected wound hematoma. One patient had a transient posterior tibial nerve palsy. One patient with an established preoperative osteomyelitis continued to drain for several months postoperatively. Only one patient had an angulation deformity of greater than 15° , and one had shortening greater than 1 inch. There have been no amputations in this series.

The following reports are illustrative of the variety and difficulty of the cases included in this series.

Case One

A 7-year-old white female was seen at KUMC in March 1972, with a familial history of neurofibromatosis and an unhealed fracture of the left tibia. Because

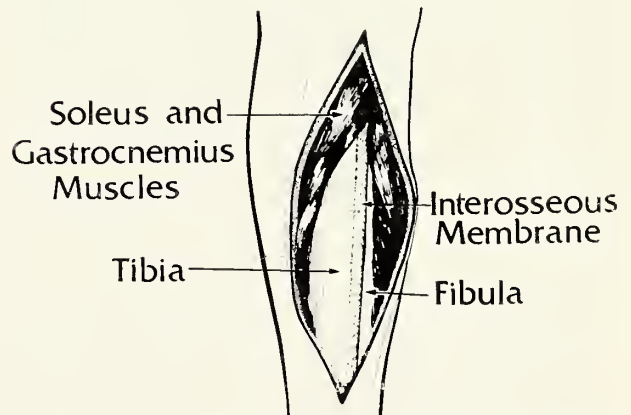


Figure 3. The posterior tibial artery, vein, and tibial nerve are not exposed since they lie between the tibialis posterior and flexor hallucis longus muscles.



Figure 4. Classical x-ray appearance of precursors of congenital pseudoarthrosis of the tibia, including anterior bowing of tibia, congenital cyst, sclerosis, and defect in the fibula.

of anterior bowing of the tibia and x-ray evidence of sclerosis and cyst formation in the distal third of the tibia (Figure 4), she had been treated with a short leg brace from age 18 months to 5 years. No support was used at that time until she sustained a fracture at age 6½ years (Figure 5). Treatment from that time had consisted of long leg plasters. On examination in March 1972, there was gross motion at the fracture site and x-ray evidence of an unhealed fracture (Figure 6). Bone grafting was carried out through the posterolateral approach in June 1972. Union was evident within three months, and the patient is now ambulatory without external support and with minimal deformity (Figure 7).

Case Two

A 16-year-old white male was first seen at KUMC in October 1966, after sustaining an open, severely comminuted fracture of the left tibia in a motorcycle accident three weeks earlier. There was a large anterior skin defect and approximately 2 inches of tibia missing in the midshaft area. Multiple debridements, split thickness skin grafts, and finally a cross leg pedicle



Figure 5. Fracture at level of the congenital cyst.



Figure 6. Pseudoarthrosis of tibia at fracture site.

graft were required to obtain soft tissue coverage. The fibula, which had initially been stabilized with a Rush pin (Figure 8), was then transferred to the tibia, and cancellous bone grafting carried out from the posterolateral approach (Figure 9). Postoperatively, the patient developed a gram-negative septicemia, which responded to appropriate antibiotics and supportive therapy. The leg was stable clinically within six months, with x-ray evidence of tibial-fibular synostosis above and below the tibial defect. Within eight months, the tibial defect was partially filled in, with 1 inch of shortening and minimal angulation (Figure 10).

Case Three

A 44-year-old white male sustained a close range .357 magnum pistol wound to the right leg in December 1970 (Figure 11). After initial debridement, there was a massive soft tissue deficit and a 1½-2 inch bony defect (Figure 12). Wound healing and coverage was achieved over the next few weeks with split thickness skin grafts. A posterolateral bone graft was done in July 1971. No immediate postoperative complications occurred, but an abscess developed four months postoperatively; it responded to operative drainage and antibiotics. Union was evident by seven months, and



Figure 7. Tibial-fibular synostosis and healing of pseudoarthrosis following cancellous bone grafting from posterolateral approach.

the patient has been fully ambulatory and working since that time (Figure 13).

Discussion

Several authors have enumerated the principles underlying this procedure.¹⁻⁶ Phemister,⁷ in 1947, popularized the technique of cancellous onlay bone graft in the treatment of union problems of the tibia and fibula. That autogenous cancellous bone is superior in its ultimate result is now a consensus.⁸⁻¹⁰ A synostosis of the tibia and fibula above, below, or at the fracture site is satisfactory for achieving good clinical stability. He also showed that as the synostosis developed, often the fibrous union at the fracture site converted to solid bony union.

The posterolateral operative approach to the tibia as initially described by Harmon³ is basically sound. It avoids old wounds, scars, and draining sinuses that usually occur in the anterior or anteromedial aspect of the leg when there has been extensive soft tissue damage associated with tibial fractures. This approach takes advantage of the nearby musculature of the posterolateral aspect of the leg, which is rich in blood sup-

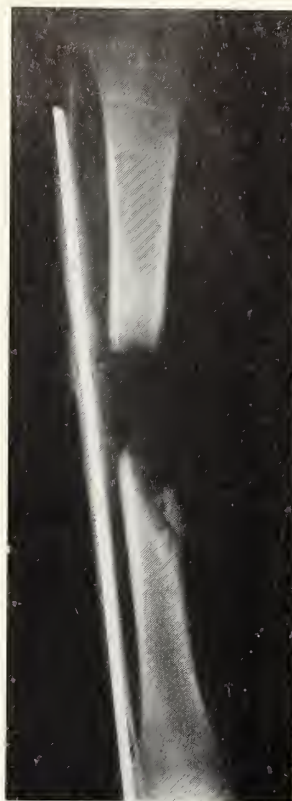


Figure 8. Stabilization of fibula with a Rushpin. Note defect in tibia.

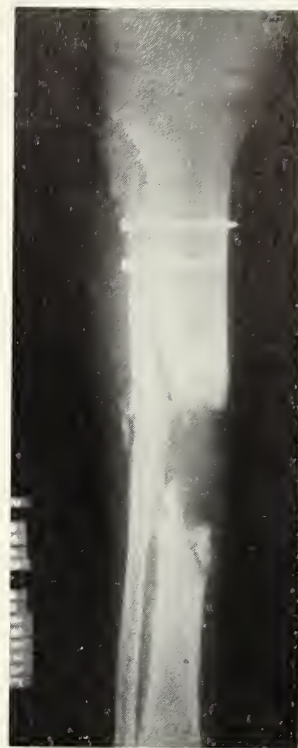


Figure 9. Fibular transfer to proximal tibia and cancellous bone grafting from posterolateral approach.

ply necessary to heal fractures and incorporate bone grafts.¹¹⁻¹³ This concept was supported recently by Holden,¹⁴ in an experimental study in which there was a definite delay of fracture healing in areas where the nearby musculature had been rendered ischemic.

One case of congenital pseudoarthrosis of the tibia was successfully treated in this series. It is notoriously difficult to obtain satisfactory results in this particular entity, and often requires multiple operative procedures. Although this is a single case, this method may prove to be a significant contribution in the management of these difficult problems.

Summary

Twenty-two union problems of the tibia have been treated successfully, utilizing the posterolateral operative approach and autogenous cancellous onlay bone grafts. Few complications were encountered. The underlying principles are: (1) the approach avoids old wounds, scars, and draining sinuses that usually occur on the anteromedial aspect of the leg; (2) the approach takes advantage of the musculature of the posterolateral aspect of the leg to hold the graft in place and revascularize it; (3) synostosis above, below, or at



Figure 10. Very solid healing and filling in of defect in tibia.



Figure 11. Short range, high velocity gunshot wound of leg.



Figure 12. Bony defect following debridement.

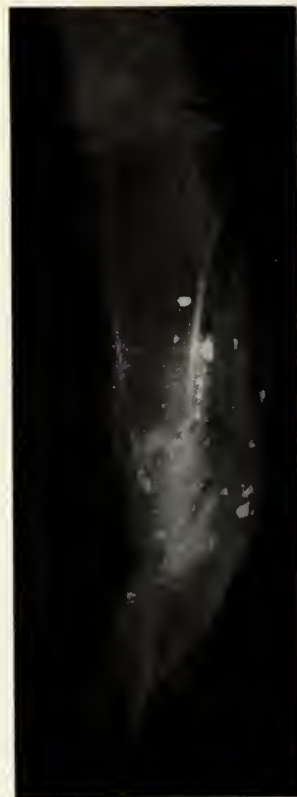


Figure 13. Solid tibiofibular synostosis and filling in of defect 7 mos following cancellous bone grafting from posterolateral approach.

the fracture site is sufficient to obtain a successful clinical result.

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Postsurgical Arteriovenous Fistula

Acquired A-V Fistula of the Mesentery

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ACQUIRED ARTERIOVENOUS FISTULA OF THE MESENTERY is a relatively new and rare entity in medicine. Since the original case of Movitz¹ in 1960, 16 cases of mesenteric arteriovenous fistula caused by surgical or accidental trauma have been reported in the English literature.²

We wish to report a case of postsurgical arteriovenous fistula of the mesentery with particular emphasis on the diagnostic radiological aspects of the entity. The pathophysiology and symptomatology of this condition are discussed.

Case Report

A 37-year-old white female was readmitted to the University of Kansas Medical Center because of constant right lower quadrant abdominal pain. Two months previously, she was discharged from KUMC with a diagnosis of irritable bowel syndrome following an extensive workup for the abdominal pain and a 46 pound weight loss. The pain was of six months duration and had become constant, aching in character, and aggravated by eating and walking. It was not influenced by evacuation of the bowel or bladder, and was not relieved by medication.

The patient had had a total abdominal hysterectomy ten years previously. Two years later, a small bowel obstruction due to adhesions was found and lysis of adhesions without resection of bowel was performed. She had been complaining of severe constipation and mild postprandial abdominal pain for the last several years.

Positive physical findings included a late systolic murmur at the apex of the heart, and an abdominal bruit which was heard in the epigastrium and in right para-umbilical region. No thrill was palpable. Diffuse tenderness was present over the right lower quadrant and the lower mid-abdomen. The bruit had not been detected on the first admission to KUMC.

Laboratory studies, including routine studies for blood, urine and stool, liver function tests, Xylose absorption test, Schilling's test, serum B₁₂ and carotene, blood

folate, and protein electrophoresis were all normal. EKG showed normal sinus rhythm and nonspecific S-T variations. Sigmoidoscopy revealed no mucosal ulceration but did demonstrate spotty, dark pigmentation throughout the 18 cm of distal colon examined.

Radiological examinations including chest, gallbladder,

A case of postsurgical arteriovenous fistula of the mesentery, with particular emphasis on the diagnostic radiological aspects of the entity, is reported. The pathophysiology and symptomatology of the condition are discussed.

upper and lower gastrointestinal tracts, and urinary tracts were normal. Abdominal sonography was normal.

Because of the abdominal bruit, biplane abdominal aortography and selective superior mesenteric arteriography were performed. The anteroposterior aortogram showed the early filling of a vein in the right lower quadrant (*Figure 1A*). The lateral aortogram revealed a 70 per cent narrowing of the celiac axis (*Figure 1B*). The selective superior mesenteric arteriogram demonstrated an arteriovenous fistula between the descending branch of the right colic artery and the right colic vein (*Figure 2A*). The portal vein and its radicals were well opacified and slightly dilated (*Figure 2B*).

At surgery, the arteriographic findings were confirmed. The fistula was 1.0 cm. in diameter and covered by thickened fibrotic mesentery. The right colic vein was three times larger than normal. The mesenteric veins distal to the fistula were engorged. The colon was bluish in color throughout its entire length. The terminal ileum and more proximal small bowel were normal in color. Arterial insufficiency to the ascending colon was suspected, and a right hemicolectomy was performed. In addition, a palpable thrill was present over the site of the celiac stenosis. The splanchnic nerve and the right crus of the diaphragm were dissected and the thrill disappeared. Postoperatively, the patient did extremely well and her symptoms immediately subsided. At three months followup, the patient was completely free of

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Figure 1a



Figure 1b

Figure 1. Biplane abdominal aortography. (a) AP view demonstrates early filling of a vein (arrows) in the right lower quadrant. (b) Lateral view shows 70 per cent stenosis of the celiac artery (arrow) by compression of the crus of the diaphragm. Note the poststenotic dilatation of the distal artery.

symptoms.

The serosal surface of the resected right colon was bluish-gray and dusky. The mucosal surface was dark-purplish. Injection of a barium mixture into the ileocolic and the right colic artery distal to the surgical ligatures showed a normal arterial arborization of the distal branches and a normal vasa recta to the colon. Microscopically, multiple areas of focal inflammation were present in the serosa. The mucosa was normal and no abnormal findings were found in the vascular structures.

Discussion

All the mesenteric arteriovenous fistulae reported in the literature are of traumatic origin.² To our knowledge, there is no reported case of a mesenteric arteriovenous fistula caused by arteriosclerosis or inflammation.³ Of 11 cases (including our case) of postsurgical arteriovenous fistula of the mesentery, eight followed small or large bowel resection; one followed lysis of adhesions, and two appeared after gastrectomy. Of six cases of post-traumatic fistula, five were caused by gunshot wounds and one by a stab wound (*Table I*). Our case is etiologically of interest since this is the first case in which the fistula appeared following lysis of adhesions without bowel resection.

TABLE I
ETIOLOGY OF ACQUIRED MESENTERIC
ARTERIOVENOUS FISTULA

	<i>No. of Cases</i>
Postsurgical	
Small or large bowel resection ^{1, 2, 4, 6, 8, 13} . . .	8
Gastrectomy ³	2
Lysis of adhesion (the present case)	1
Post-traumatic	
Gunshot wound ^{5, 7, 9, 10}	5
Stab wound ¹²	1
Total	17

The mesenteric vessels are particularly vulnerable to fistula formation because they course closely together anatomically. An arteriovenous fistula is easily created when both artery and vein are transfixated and ligated together during a surgical procedure, or when both vessels are partially severed simultaneously by a penetrating injury.^{1, 4, 5} Therefore, careful isolation and separate ligation of the vessels should be achieved, if at all possible.⁶

When an arteriovenous fistula is formed, an aneurysmal dilatation of the involved vessels develops both proximal and distal to the fistula with an enlargement of the feeding artery and draining vein.⁷ The arteries

distal to the fistula are small in size but normal in arborization and structure. The veins distal to the fistula are engorged and produce congestive changes in the bowel.^{1, 5} Ulceration of the mucosa and erosion of the bowel wall by the fistula resulting in active gastrointestinal bleeding have been reported.^{2, 5} The resultant hemodynamic disturbances produce an increase in venous pressure and volume, and ischemia of structures distal to the fistula.^{2, 7} This functional abnormality, plus the changes of venous congestion, may cause alteration of bowel physiology including motility, enzyme excretion, and absorption manifested clinically by abdominal pain, diarrhea, food intolerance, or constipation.^{4-6, 8} Because of the increased flow into the portal system, these patients develop various degrees of portal hypertension depending on the size, location, and duration of the fistula.^{4, 5, 9}

Cardiac complications are not as common in patients with an arteriportal fistula as they are when a systemic arteriovenous fistula is present.^{2, 10} This lack of cardiac complication is explained primarily by the dampening effect of the hepatic sinusoids interposed between the fistula and the systemic circulation.²

A wide variety of clinical manifestations secondary to hemodynamic and physiologic alterations are present in patients with a mesenteric arteriovenous fistula. They range from subclinical quiescence to death.^{5, 9} The predominant symptoms are abdominal pain and diarrhea, which were present in 17/17 and in 7/17 cases respectively (*Table II*). Physical signs diagnostic of arteriovenous fistula include a continuous bruit with systolic accentuation and a palpable thrill over the abdomen. Bruits were audible in all 17 cases and thrills were palpable in 8 cases (*Table II*).

The frequency of diagnosis of the mesenteric arteriovenous fistula would be increased if clinicians would seek bruits by routine auscultation over the scars of surgery or trauma.¹ If the patient has intricate abdominal complaints, or develops symptoms and signs of portal hypertension after abdominal surgery or penetrating injury, every effort should be made to exclude vascular abnormalities such as fistula.

Arteriography is an essential diagnostic tool for evaluation of the patient with an abdominal bruit.¹⁰⁻¹² Biplane aortography is necessary for a diagnosis of arteriovenous fistula or stenosis of the major arteries (*Figure 1, A and B*). Selective arteriography of the superior mesenteric or the celiac artery is mandatory to demonstrate the precise anatomic location and extent of the fistula, and also to evaluate the portal venous system (*Figure 2*).^{4, 10} Of the 17 cases, the midstream aortogram failed to detect or to locate the fistula correctly in three.^{1, 3, 6} Arteriography was not performed in three

TABLE II
SYMPTOM AND SIGN OF ACQUIRED
MESENTERIC ARTERIOVENOUS FISTULA
IN 17 CASES

<i>Symptoms</i>	<i>No. of Occasions</i>
Abdominal pain	11
Diarrhea	7
G.I. bleeding	2
Dyspnea	2
Chest pain	2
Fever	2
Weight loss	2
Fatigue	2
Palpitation	1
Constipation	1
Asymptomatic	2
Bruit	17
Thrill	8
Tenderness	3
Hepatomegaly	2
Ascites	2
Esophageal varices	2
Heart murmur	2
Cardiomegaly	1
Elevated cardiac index	1

cases, of which one died after two exploratory laparotomies where the fistula remained undetected until autopsy.⁵

Surgical correction for an arteriovenous fistula is quadruple ligation and excision of fistula with restoration of vascular continuity.^{1, 3} Resection of the bowel is indicated only when associated pathological changes are present.^{2, 13} Sixteen of 17 cases were cured by surgical repair.

Summary

The first case of postsurgical arteriovenous fistula of the mesentery without associated bowel resection is presented. The pathophysiology and symptomatology are discussed and the literature is reviewed.

Since the hemodynamic disturbances caused by the abnormal communication between the mesenteric vessels produce various clinical manifestations, unawareness of this lesion will result in an exhaustive workup and erroneous diagnosis, such as irritable bowel syndrome, malabsorption syndrome, or portal hypertension of unknown cause. If the physician with an awareness of this entity seeks bruits with routine auscultation over the scars of surgery or trauma, the frequency of diagnosis would be increased. Selective arteriography is essential for accurate evaluation of the anatomic location and extent of the lesion.



Figure 2a



Figure 2b

Figure 2. Selective superior mesenteric arteriography. (a) Direct communication between the descending branch of

the right colic artery (closed arrows) and the right colic vein (open arrows) is sharply depicted. Aneurysmal dilatation of the vein is noted at the site of the fistula. (b) The right colic vein is dilated and densely opacified due to an increased venous flow. Note the enlarged portal vein and its radicals suggesting an increased portal pressure.

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RECORD NUMBER APPLY FOR ADMISSION

A record number of students have applied for admission to the Medical Center for the class entering in July of 1974.

Applications have been received from 997 prospective students, of which 389 are Kansas residents. Present facilities allow only 163 applicants to be accepted. Construction is now underway which will permit increasing each entering class to 200 students in July of 1975.

Childhood Malignancy

A Comprehensive Approach

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TOTAL TREATMENT program for children with malignancies has by necessity become a multi-disciplinary plan over a long period of time. The significance of a surgeon, radiotherapist, and pediatric oncologist functioning as a team has been frequently emphasized.¹ The material reported here reflects our experience with a team expanded to include the psycho-social aspects of the disease. The recent advances in therapy have made many childhood malignancies chronic diseases. Living longer is not always a completely positive occurrence. There are many problems that can evolve with long survival.^{2, 3} In some of these children, the emotional problems are more incapacitating than the malignancy. It is because of the recognition and treatment of these problems that a preventive program has been developed by our oncology team.

Over the past six years, it became apparent that stresses were developing in the families (25 newly diagnosed cases of leukemia and 15 solid tumors each year) which were somewhat apart from the usual medical problems yet infringed upon the treatment. These stresses included: severe marital discord; unreasonable demands by grandparents; acting out behaviors in the siblings; abandonment of the family by friends and relatives; an overclose relationship between the patient and mother; school phobia in the patient; refusal of the father to accept the diagnosis and its implications; inability of the mother to form a close attachment to her other children.⁴

Marital Discord

At the time the diagnosis is made, the parents are in a state of shock and absorb little of the information given to them. They cling to one another protectively and talk over their fears. This closeness is short-lived

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and replaced by a relationship that often persists until the death of the child. The mother assumes the total caretaking role of the sick child. In doing so, the father is more or less eased out of the relationship both with mother and the sick child. He accepts this and devotes himself to his job. This chain of events is gradual and is not recognized by the parents. Communication between the parents is confined to bare essentials and the rift widens. The divorce rate is extremely high when there is no therapeutic intervention.

Grandparents

Grandparents can be "the straw that breaks the camel's back" for families who are trying their best to cope with a devastating illness. They offer unwanted advice: "Those doctors don't know what they are doing—take the child elsewhere." They are oversolicitous of the child and undermine the parents' discipline: "How can you punish that child when you know he won't live long?" They overindulge the sick child with gifts, which causes two problems: it frightens the child, because he knows that only people who are not expected to live get this type of attention, and he may be feeling quite well. It causes animosity in the siblings who feel left out and neglected.

Siblings

Siblings who prior to the illness of their brother or sister had been getting along well both at home and school suddenly start getting in trouble. This appears to be a result of several factors. As mentioned earlier, mother spends most of her time attending the sick child with little attention to the others. Father is away from home working extra hours. The siblings feel resentment toward the child who is receiving all the attention, but feel extremely guilty if they complain about it. Thus, the only way to express their frustration is by unacceptable behavior at home or school.

Abandonment

This is an insidious isolation occurring over a long period. At the time of the diagnosis, friends and relatives gather around offering assistance. They provide

food and baby sitters for the family; bosses give the father extra time off; everyone is helpful. However, as the illness goes on, they no longer provide this support and become uncomfortable in the presence of any family members. In one extreme case, a father who had had lunch with the same co-workers every day for years, was suddenly excluded with no explanation. It would appear that friends are uncomfortable in discussing incurable illness. They fear that the subject of death will be raised and they will not have anything appropriate to say. Neighbors may not let their children play with the sick child. One mother said that she did not want her child to get attached to a playmate he would lose.

Overclose Relationship

One of the duties society expects of mothers is caring for their sick children. The expectation of fatal outcome of a malignancy that parents have adds an additional burden to the care of the child. Very early in the course of the disease, mother and child develop a magical idea that mother can ward off any danger by her very presence. When anyone else attempts to assist in the care, the child wails, "I want mommy," and she immediately takes over. Fathers who have attempted to have an active role with child back off at this point.

This dependent relationship may become so complete that the two cannot be separated—never out of each other's sight. They both feel trapped and angry in this smothering relationship, but panic when separated. This excessive closeness leads to the following problems of school phobia and regression in the patient.

School Phobia

In our population (approximately 100 children being treated at any given time), we found 11 children during a one-year period who had school phobia. The criteria are: (1) refusal to attend school; (2) physical complaints; and (3) severe anxiety. These children were in a remission period or doing well when the diagnosis of school phobia was made. Their physical complaints were the same as those of physically healthy children and consisted of headache, stomach ache, and vague aches and pains—all of which disappeared when school was not in session.

Many of the children who have an overclose relationship with the mother and develop a school phobia go on to a marked regression. Children over 10 years of age cry when their mothers leave the room; 12-year-olds insist on sleeping with their mother; a 15-year-old talked baby talk, and in its most extreme form, the children and teenagers assume a fetal position refusing to leave their beds.

Refusal of the Father to Accept the Diagnosis and Its Implications. Fathers who have been uninvolved with the child since the diagnosis and not communicating with the mother are shocked when the terminal illness occurs. They say, "Why didn't someone tell me," or "I thought my child would be one of the lucky ones." These fathers have a prolonged grieving period with feelings of extreme guilt.

Inability of the Mother to Form a Close Attachment to Her Other Children. This problem has only recently come to our attention, probably because it is such a painful one to discuss and is a threat to the mother's self-concept. Mothers have said, "I just don't care what happens to the others"; "I wish it would have happened to one of the others instead of my favorite child"; "I'm afraid to love them again because something may happen."

This attitude may last in the mother for as long as two years. When it endures that long, the children have long since found other sources of support and may be unwilling to reciprocate; thus, the situation persists.

Treatment Team

The Oncology-Hematology Division of Pediatrics at KUMC is a member of the Southwest Cancer Chemotherapy Group. The oncology team consists of the chief hematologist-oncologist, two staff hematologist-oncologists, a child psychiatrist, two fellows in training hematology-oncology, a nurse-clinician, and a lay expediter. There is a need for a broad representation in the team. Families are more likely to share emotional and financial concerns with a member not involved in therapeutic decisions. As an example, the lay expediter is frequently the first to hear of financial difficulties. The families seem to feel that the oncologist might alter their child's treatment if he knew of their financial plight. The specific roles of these members will be described.

Chief Oncologist directs the departmental section, as well as the team. He makes decisions regarding protocols and research. He is the chief coordinator between cooperative regional research programs and KUMC. While he has some patient responsibilities, his role is felt greatest as team leader, assisting the other individuals in their roles.

Two Staff Hematologists direct patient care. They have frequent conferences with the parents and children to keep them abreast of the treatment program. They are responsible for interpreting and defining appropriate medical care. This includes surgical, radiotherapeutic, and chemotherapeutic evaluations.

Pediatric Psychiatrist sees all patients routinely. He sees in-patients and their parents once or twice weekly

on a casual visiting basis, and conducts weekly groups for parents and one for the children. Individual sessions are held whenever any member of a family is having a crisis and, occasionally, complete family sessions are utilized. The psychiatrist also acts as a consultant to the other team members regarding their interaction with the families.

Fellows have the most frequent patient contact and are seen as the primary physicians by the families. In addition to carrying out the diagnostic and treatment procedures, they too spend a great deal of time talking with the family members.

Nurse Clinician has one of the broadest, most encompassing roles. She treats, comforts, communicates, and facilitates. This includes administering chemotherapy and intrathecal medications, translating in-hospital nursing care plans to home care, and making home visits. She is involved in every aspect of patient care.

Lay Expediter is a mother whose child died of leukemia a few years ago. She makes sure that communications are clear between the medical staff and the families. She assists the parents in contacting helping agencies. With the nurse clinician, she maintains frequent contacts with the families. She utilizes letters and telephone calls to keep in touch with the family, both during the illness and after the death of the child.

As might be expected, the activities of team members may overlap. This has considerable advantage for the patient. Both physical and psychological problems that might be overlooked by one person are sure to be picked up by another. This information is exchanged at the weekly team meeting. Because they operate as one, the patients understand that information given to one member will be shared by all. Interestingly, this does not inhibit families. Rather, they talk to the person with whom they find it easiest to communicate. When problems arise which they do not want discussed by the team, private sessions with the pediatric psychiatrist are kept confidential.

Frequent open communication is the main thrust of our therapeutic program. Parents are told the diagnosis as soon as it is established; treatment protocols are discussed. They are advised of the psycho-social complications of the disease. The sick child also is told about his disease in terms he can understand. He is told the medical name of his disease (*i.e.*, "leukemia") and that it may be incurable. Parents, on hearing the diagnosis, often think the child will die very soon. Occasionally, a child will also ask this. Survival rates are discussed with them.

The first hospitalization is the time when a working relationship is established between each team member and the family. They quickly learn that even though they

forgot to ask a question of the oncology fellow on rounds that morning, one of the other team members can either answer it or convey it to the appropriate person.

To return to the problems described in the beginning of this paper, methods we have found useful in intervention will be discussed. All members of the team encourage the family to maintain as normal a life as possible. The sick child is expected to participate in the family activities and responsibilities when physically possible. Fathers are asked to take an active role. This may take the form of staying with the child during in-hospital periods, bringing the child for clinic visits (if this does not seriously interfere with his job), participating in group sessions with other parents, being present during conferences regarding the child's treatment and prognosis. It also includes sharing in any special care that may be necessary and thus freeing the mother periodically for other activities. Where fathers have adopted such a role, school phobia, regression, and an overclose relationship with mother have not developed. By participating in the total care, the father has a clear understanding of the diagnosis and the medical condition of the child.

School phobia is a very difficult problem to treat and is more easily prevented. From the time of diagnosis, the team points out the necessity of attending school whenever possible. The parents are questioned directly regarding school attendance when the child comes in for clinic visits. Schools have been helpful in making special arrangements when these were indicated. This is the child's most important task not only for learning, but also for socialization. To permit him to stay home encourages isolation and later regression.

Grandparents need individual time with the medical team for careful explanations. Privately, they will often say that their sorrow is double—they anticipate the loss of a grandchild and cannot help the suffering of their own child. Some of the grandparents have profited by attending the parents' groups. They are able to understand how important it is to maintain as normal a life as possible for the sick child and his family.

Parents are encouraged to be aggressive in maintaining relationships with friends and relatives. They have to teach others to talk openly with them about their child's illness and possible death. Educating others helps eradicate fears so old friendships can be resumed.

Siblings should be included periodically in family conferences with the staff oncologists. A good time for the initial conference is near the end of the first hospitalization, when the parents are beginning to understand and accept the illness. Siblings need to hear the information from the physician with the parents and

sick child. In this manner, the information given is more accurate and less emotionally charged.

Parents will need to be reminded of the importance of staying actively involved with their other children. When they are "tuned in" to the other children, as well as the patient, they will often bring these siblings in during treatment time, so they can understand what is happening to their brother or sister. Our children's activity group each week includes any siblings who want to come, and has been successful in making them feel they have some part in the process.

Our program does not end with the death of the child. Our nurse-clinician or lay expediter attends funerals whenever possible. This demonstrates to the families that our interest in them continues. Parents are encouraged to come back and discuss any unanswered questions. This usually occurs for the first time when the autopsy is discussed with them. We continue to write letters and call them for at least two years following the death of their child. Some come back occasionally to participate

in the parents' group. Others come in for individual sessions. They know the members are available to them as long as they need them.

The goal in treatment can be stated rather simply: It is to integrate this devastating event into the total family experience. The team as described has been operative for 21½ years. One of its main functions is to accumulate meaningful data in an attempt to study the effects of therapeutic intervention and prophylaxis on the overwhelming stress of malignancy.

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UNIVERSITY OF KANSAS SCHOOL OF MEDICINE

POSTGRADUATE MEDICAL EDUCATION

Symposia:

OPHTHALMOLOGY

April 15 and 16, 1974.

D. JACKSON COLEMAN, M.D., WILLIAM C. COOPER, M.D., and STEPHEN L. TROKEL, M.D., all of the Edward S. Harkness Eye Institute, College of Physicians and Surgeons of Columbia University, New York City (with the assistance of selected members from the University of Kansas Medical Center faculty) will discuss the following aspects of Diseases and Trauma of the Orbit and Globe:

SURGICAL DECISION IN EXOPHTHALMOS, ORBITAL TUMORS, ORBITAL PSEUDOTUMORS, OCULAR TUMORS, OCULAR TRAUMA AND FOREIGN BODIES, FOREIGN BODIES, SURGICAL DECISION IN ORBITAL TRAUMA and NEW CONCEPTS IN THE MANAGEMENT OF EPIPHORA.

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April 22 and 23, 1974.

Guest Faculty:

RICHARD A. O'DAY, D.D.S., M.S., American Board of Oral Surgery, Sacramento, California.
ROBERT H. PROPPER, D.D.S., University of California at Los Angeles College of Dentistry.
HAMILTON B. G. ROBINSON, D.D.S., School of Dentistry, University of Missouri at Kansas City.
NORMAN TRIEGER, D.M.D., M.D., Montefiore Hospital and Medical Center, Bronx, N.Y.

Subjects to be discussed will include:

CONCEPT OF PAIN CONTROL IN DENTISTRY, OFFICE EMERGENCIES AND RESUSCITATION, HOW TO TAKE CARE OF THE CARDIAC PATIENT IN THE DENTAL OFFICE, AMBULATORY GENERAL ANESTHESIA, DRUG INTERACTIONS, and HOW TO CARE FOR PATIENTS WITH PULMONARY DISEASE.

Fee—\$65.00

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Nephrology

Pattern of Consultation in a General Hospital

JARED J. GRANTHAM, M.D., DONALD R. TUCKER, M.D.,
DENNIS A. DIEDERICH, M.D., FREDERICK WHITTIER, M.D. and
DONALD E. CROSS, M.D., *Kansas City, Kansas*

NEPHROLOGY is the subspecialty of internal medicine in which the practitioners deal primarily with problems related to renal parenchymal disease and fluid, and electrolyte disorders. Although nephrology has been the principal interest of a few physicians throughout the course of this century, only within the last two decades have we seen the establishment of nephrology groups in teaching centers and in large general hospitals. The recent emergence of increased numbers of renal specialists can be attributed largely to the accelerated use of hemodialysis and renal transplantation as reasonable treatment for end-stage renal failure. Owing to the availability of more renal specialists, there appears to be a growing appreciation for the expertise the nephrologist has to offer the general medical community beyond the areas of dialysis and transplantation.

In the past, nephrologists have suffered from an image problem in that lay persons and medical practitioners often confused the medical renal specialist with his counterpart in surgery, the urologist. The interest and expertise of the medical and surgical nephrophiles are quite distinct, however. Urologists are interested primarily in macroscopic anatomical alterations of the excretory system amenable to surgical intervention, whereas nephrologists are concerned primarily with microalterations of the nephron. A complementary relationship between the urologist and the nephrologist is quite important, however, for optimal evaluation and management of the patient with renal disease.

Because we still are asked rather frequently by nurses, students, house staff, and medical practitioners just what it is that the nephrologist does in this day and age (an understandable question in the state of Kansas, where presently there are only two practicing nephrologists outside of the University of Kansas Medical Center), we thought it would be of value to document

some of the general areas of special interest from the perspective of a practicing nephrologist.

Since subspecialists are utilized to a great extent as consultants to the general medical community, we have

Nephrology consultation requests at KUMC were analyzed in relation to the types of problems encountered and the service originating the request. Need for nephrology consultation may be expected to occur in a general medical-surgical hospital at a rate of .5 consultation/bed/year minimally.

reviewed our consultation experience at the University of Kansas over the preceding years, 1970-1972, in order to determine just what it is that we do. Actually, our purpose in performing this evaluation was twofold: (1) it is important for those of us in academic centers to know which general areas of the nephrology curriculum deserve special emphasis; and (2) it may be helpful to establish some criteria by which to evaluate the need for nephrology consultation in a general hospital.

Two kinds of consultation requests may be submitted to physicians at the University of Kansas Medical Center. First of all, the consultant may be asked to aid in the diagnosis and care of a patient, whereas, on the other hand, the consultant and his staff of students and residents may be asked to see a patient because of the potential teaching value. For this communication, only those consultations in which the nephrologist was asked to help in the diagnosis and management of the patient have been evaluated. During three years, the Nephrology Division was asked to assist in the evaluation of 530 problems occurring in patients hospitalized at the University of Kansas Medical Center. The general nature and frequency of the problems are grouped into major categories as shown in *Table I*. Acute azotemia accounted for 19.4 per cent of the problems encountered by the nephrology consultants in the hospital. In-

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TABLE I
GENERAL NATURE AND FREQUENCY OF
PROBLEMS ENCOUNTERED IN
CONSULTATION, 1970-1972

	Number	%
Acute azotemia	103	19.4
Cardiovascular-renal	86	16.2
Kidney, ureter, bladder	86	16.2
Systemic disease—renal	79	14.9
Parenchymal renal	65	12.4
Metabolic renal	61	11.5
Chronic azotemia	50	9.4
Total	530	

cluded in the general category of acute azotemia were those patients with acute renal failure in which there was clear evidence of parenchymal dysfunction; also included is a group of patients who could be categorized as having pre-renal azotemia. *Table II* analyzes the problems underlying the consultation request in relation to the background of the referring physician. With respect to acute renal failure, it may be seen that the bulk of the consultation requests was derived from surgical service, whereas the problems related to pre-renal azotemia were approximately equally divided between medicine and surgery.

The second most-common category of problems that confronted us was related to the cardiovascular-renal system. Hypertension, arteriolonephrosclerosis, and refractory heart failure accounted for 16.2 per cent of the consultations. As shown in *Table II*, the bulk of these consultation requests emanated from the Department of Medical Services, although there were significant numbers of requests from the Departments of Surgery and Obstetrics and Gynecology, especially in relation to the problem of hypertension.

Problems of the kidney, ureter, and bladder made up 16.2 per cent of the requests for consultation (*Tables I and II*). Included in this general category are urinary tract infection, hematuria, and obstructive uropathy and nephropathy. Urinary tract infection was a frequent problem referred to the consulting nephrologist, and the requests came primarily from the Department of Medical Services, whereas obstructive uropathy and nephropathy problems were encountered principally in connection with services of the Department of Surgery.

Systemic disease involving the kidney was seen in 14.9 per cent of the consultations, with diabetes mellitus and collagen vascular disease heading the list (*Tables I and II*). The bulk of these consultation re-

TABLE II
ORIGIN OF CONSULTATION REQUESTS
1970-1972

	Medicine	Surgery	Gynecology	Other	Total
Acute azotemia					
Acute renal failure	26	43	3	1	73
Pre-renal azotemia	16	13	1	0	30
Cardiovascular-renal					
Hypertension	55	11	8	0	74
Arteriolonephrosclerosis ..	6	3	0	0	9
Refractory heart failure ..	3	0	0	0	3
Kidney, ureter, bladder					
Urinary tract infection ...	29	9	6	3	47
Hematuria	11	8	1	0	20
Obstructive nephropathy ..	6	12	1	0	19
Systemic disease-renal					
Diabetes mellitus	32	7	1	0	39
Collagen-vascular	26	0	0	0	27
Multiple myeloma	9	0	0	0	9
Amyloidosis	2	2	0	0	4
Parenchymal disease					
Glomerulonephritis	11	3	4	0	18
Nephrotic syndrome	10	3	5	0	18
Cystic disease	11	0	1	0	12
Proteinuria	5	2	1	0	8
Renal mass	5	0	1	0	6
Interstitial nephritis	1	1	0	1	3
Metabolic-renal					
Nephrolithiasis-calcinosis ..	9	3	1	0	13
Metabolic alkalosis	8	2	2	0	12
Hyponatremia	13	2	0	0	15
Metabolic acidosis	9	0	1	0	10
Hypercalcemia	4	1	0	0	5
Hyperosmolar coma	3	0	0	0	3
Glycosuria-					
hypoproteinemia	3	0	0	0	3
Chronic azotemia	37	13	0	0	50

quests came from the Department of Medical Services. Multiple myeloma and amyloidosis were seen, but with much lesser frequency than diabetes and collagen vascular disease.

Problems involving renal parenchymal disease were observed in 12.4 per cent of the patients. Glomerulonephritis, nephrotic syndrome, cystic renal disease, proteinuria, renal mass, and interstitial nephritis are included in this group (*Tables I and II*). These problems were observed most frequently in the Department of Medical Services, but surgeons and gynecologists encountered these problems not infrequently.

Metabolic problems, including nephrolithiasis and nephrocalcinosis, metabolic alkalosis and hypokalemia,

hyponatremia and metabolic acidosis, comprised 11.5 per cent of the consultations.

Chronic azotemia was at the bottom of the list (*Table I*) with a frequency of 9.4 per cent of the total consultation requests, mainly from the Department of Medical Services. It is appropriate to point out at this juncture that although modern nephrologists are often identified as physicians who diagnose and take care of patients with chronic renal failure predominantly, we believe it is clear from this analysis with respect to consultative practice that chronic azotemia is far from the commonest type of problem which the nephrologist is called upon to see.

Further, in the context of the foregoing information, there are additional points that can be made. The nephrology consultant is often asked to assist with problems which are of a short-term and potentially remediable nature. For example, in the general categories of acute azotemia, cardiovascular-renal and metabolic-renal, a clear diagnosis and carefully structured therapy can often lead to a satisfactory resolution of the problem. For these general problems, it is emphasized that the nephrology consultant can probably be of most help to the referring physician if his assistance is solicited early in the course of the respective problem.

Additionally, information of the type assembled here may serve as a guide to the need for nephrology consultative backup in hospitals generally. Owing to the fact that all attending staff and house staff are exposed periodically to the new developments in the subspecialty, it is probably reasonable to assume that our experience in nephrology consultation at the University of Kansas Medical Center satisfies a minimum need for a general medical-surgical hospital. There are currently 135 medical, 182 surgical, and 55 gynecology beds at the University Hospital. On the basis of our experience, it may be anticipated that consultation for nephrology problems may occur at a minimal rate of .87, .25, and .22 consultations per hospital bed per year on medical, surgical, and gynecology services respectively.

Postgraduate Field Staff

(Continued from page 76)

department's annual report.

In addition to the primary duties listed above, there are many things that the field representatives do to help further the work of the department—so many that only a few of the more important ones will be mentioned. For one thing, they help to prepare material for the printer, check proof, and pick up finished work from the University of Kansas Printing Service, in Lawrence, in order to avoid unnecessary delays in transportation. They help assemble promotional materials, deliver them to "stuffers," and then to the post office.

Daily emergencies are a way of life in a field such as ours, and the representatives are available to help the office staff meet these crises when "overload" help is needed in any area.

In planning postgraduate courses, it is important for the department chairman to meet with the chairmen of other departments and with other faculty members who may be asked for advice or requested to participate in programs. The field representatives help to arrange such meetings and assist in their conduct in many important ways. They also contribute ideas at policy meetings within the department, between the department and other departments in the school, and with organized medicine. These ideas, being based on field experience and interviews with individual health professionals within the state, have special importance.

In conclusion, it is the obligation of medical schools to assume their full share of responsibility for the continuing education of personnel involved in health care. In order to do this, a basic organization devoted to this activity is of the highest importance. In addition to the basic administrative personnel, our experience has indicated that department—or, more properly, medical school—field representatives are not only helpful but are virtually essential.

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Drug Doses for Children

A Rational Approach to an Old Problem

ROLF HABERSANG, M.D. and RALPH E. KAUFFMAN, M.D.,
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THE EMPHASIS in medical education has generally been oriented toward arriving at an accurate diagnosis, followed by appropriate choice of therapy. Physicians have tended to view administration of medication as the easiest part of the therapeutic task. It is true that the act of writing a prescription or hospital order for medication is comparatively simple. However, correct administration of a drug may be the most difficult as well as one of the most important parts of the therapeutic effort. Therapeutic failure as well as unnecessary toxicity may result in spite of correct diagnosis and choice of medication if an appropriate dosage regimen is not followed.

The goal of drug therapy is to achieve the concentration of drug at a particular receptor site which will provide the desired beneficial effect for the patient while keeping the risks of adverse effects to a minimum. Our attempts at achieving this goal are frequently crude and at times unsuccessful. Medication dosage schedules generally have been empirically derived. Often this approach has been satisfactory, occasionally it has been disastrous. The determination of the appropriate dose of a given drug is further complicated for the physician who cares for children by the fact that he is treating patients who come in a wide variety of sizes and developmental stages.

Physicians have recognized for a long time that children of varying sizes and ages require varying amounts of medicine. More than 16 different formulas or rules have been devised over the years in attempts to adjust adult drug doses for infants and children of various ages.¹ The number of formulas attests to the fact that none of them has proven to be entirely satisfactory. Four of the more familiar rules are represented in *Figure 1*. As can be seen, one rule is based on infant age

in months and average adult weight in pounds, one is based on age, one on weight, and one on body surface area. All of these rules have been empirically derived and none of them satisfactorily extrapolates adult doses to an appropriate dose for infants and children of all ages. Dosage based on age alone is extremely inaccurate.

Basic concepts are presented which, if employed correctly, can lead to a more scientific and effective approach in defining dosage requirements for infants and children than exist today.

rate, partly due to the tremendous variability of body mass in normal children of the same age. Estimation of pediatric dose based on body weight is unsatisfactory since it is well known that the recommended dose for a number of drugs in terms of body weight is greater for children than adults.²⁻⁶ Although body surface area provides a common denominator which correlates with changes in dosage requirements with age, this relationship does not hold at all ages. In addition, a major shortcoming common to all these rules is that none of them takes into consideration the importance of dosing interval. The dosing interval may require as much adjustment during infancy and childhood as does the total dose of drug.

It is apparent, then, that a better method is needed with which to estimate the appropriate dose and dosing interval for patients from infancy to adulthood. It is the purpose of this paper to discuss some basic concepts which, if employed correctly, can lead to a more scientific and effective approach in defining dosage requirements for infants and children.

A schematic depiction of the several processes (absorption, distribution, and elimination) which interact to determine the amount and distribution of a drug and its metabolites within the body following a dose is shown in *Figure 2*. The characteristics of these processes for a particular drug determine how much and how frequently that drug must be given to achieve and

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1. Fried's Rule (patient less than 1 year of age):

$$\frac{\text{Age in months}}{150} \times \text{Adult dose} = \text{Approximate infant dose}$$

2. Clark's Weight Rule (Patient 2 yr. of age or older):

$$\frac{\text{Wt. in lbs.}}{150} \times \text{Adult dose} = \text{Approximate child's dose}$$

3. Young's Rule (patient 2 yr. of age or over):

$$\frac{\text{Age (in years)}}{\text{Age (in years)} + 12} \times \text{Adult dose} = \text{Approximate child's dose}$$

4. Clark's Surface Area Rule:

$$\frac{\text{S.A. of Child's body}}{\text{S.A. of Adult's body}} \times \text{Dose for Adult} = \text{Child's dose}$$

Figure 1. Four of the rules which have been used to extrapolate adult drug doses to doses for children.

maintain the desired concentration of drug at the receptor site. The concentration of a drug is usually measured in blood, plasma, or serum because this is the most readily accessible tissue. The assumption is made that the concentration in the blood bears a constant relationship to that at the receptor site. Changes in absorption, distribution, and elimination with growth and development add an additional variable in the pediatric patient. These processes will be discussed in more detail below.

Absorption

Since the oral route of administration is the route most frequently used in pediatrics, this discussion is oriented primarily toward the drug absorption from the gastrointestinal tract. The principles are the same for absorption from any depot site, *i.e.*, subcutaneous or intramuscular.

Two parameters of absorption have unique and significant effects on the pattern of drug concentration in the blood. These are the rate at which the drug is absorbed and the fraction of the administered dose which is ultimately absorbed. The effects of different rates of absorption on blood concentrations of a hypothetical drug following a single oral dose, while maintaining the fraction absorbed, apparent distribution volume, excretion, and metabolism constant are illustrated in Figure 3. The curve with absorption rate constant $K_a = 0.425/\text{time unit}$ represents the most rapidly absorbed preparation, and the other curves represent progressively decreasing rates of absorption. Note that the more rapid the absorption, the higher the peak level and the less time required to achieve that level. In addition, the blood concentration decreases more rapidly in the case of a high peak level as compared to lower peak levels,

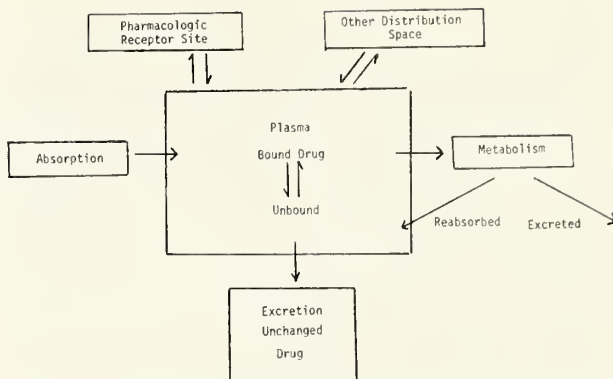


Figure 2. Schematic illustration of the various processes which interact to determine drug disposition within the body.

thereby decreasing the total time during which there may be an effective concentration of drug in the blood. Although the shapes of the curves are quite different, the areas under all four curves are identical. The total amount of drug absorbed in each case is the same. If, on the other hand, the fraction of the administered dose of a drug which is absorbed is varied while the

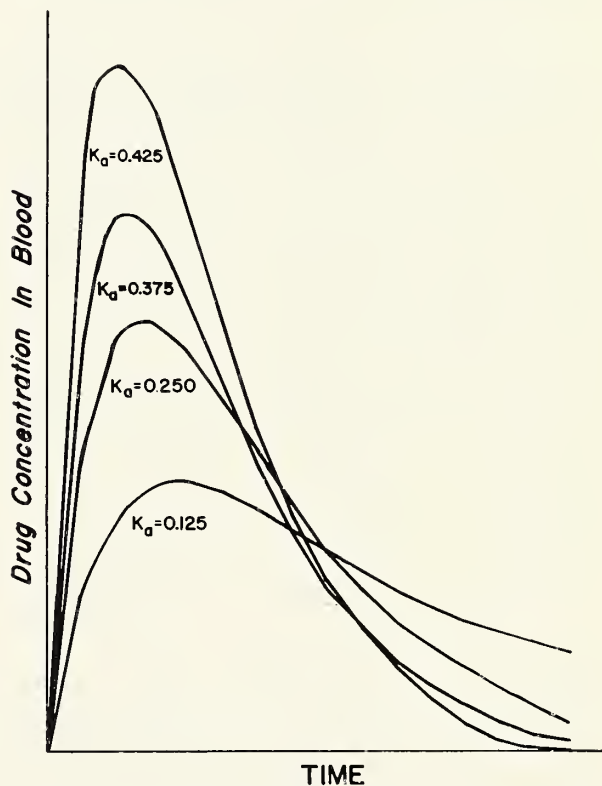


Figure 3. The fraction of dose absorbed, apparent volume of distribution, and elimination rate constant are the same for all curves. The rate constant for absorption (K_a) has been varied from 0.425/time unit (most rapid absorption) to 0.125/time unit (slowest absorption).

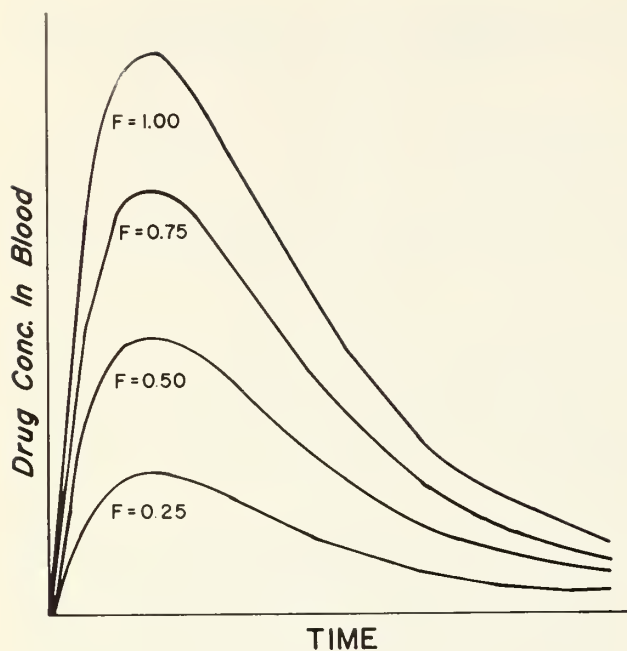


Figure 4. The rate constant for absorption, apparent volume of distribution, and elimination rate constant are the same for all curves. The fraction of administered dose absorbed (F) has been varied from 100% to 25%.

rates of absorption, metabolism and excretion, and the apparent volume of distribution remain constant, a blood level pattern as depicted in Figure 4 is observed. As the percent of administered dose which is absorbed increases, the peak blood concentrations increase and the areas under the respective curves increase in proportion to the dose absorbed, but the time required to achieve peak concentration remains the same.⁷

Many factors are important in determining the rate and degree to which a drug is absorbed. These include presence of food in the stomach, gastric emptying time, gastrointestinal motility, gastrointestinal blood flow, the dosage formulation in which the drug is administered, molecular size of the compound, and lipid solubility of the compound. Feedings may have a profound effect on the rate and degree of absorption of orally administered drugs, particularly in infants who are fed every three to five hours.

Distribution and Elimination

During and after absorption of a drug, two processes take place which control the drug concentration in the blood at any given time: distribution and elimination. These two parameters have been studied mainly in adults, the assumption being that no significant differences occur with age, weight, or height in adults. Based on these data, rational dosage schedules for some drugs have been derived for adults. As discussed above,

adult doses have been extrapolated for use in infants and children by using either age, weight, or body surface area. To the extent that the apparent distribution volume (the concept of apparent distribution volume is discussed below) is related to weight and body surface area, this parameter has been included in the pediatric dosage rules. However, the apparent volume of distribution of some drugs changes significantly with age,^{6, 8, 9} and this change is not reflected in extrapolated dosage regimens based on weight and surface area.

The gray baby syndrome and other unexpected toxic drug reactions have led to the recognition of changes in drug elimination during development. Elimination includes disappearance of a substance from the body by metabolism and excretion. The rate of disappearance of a compound from plasma is one measure of the rate of elimination and may be expressed as the plasma half-life for that drug. The term "half-life" assumes exponential elimination, meaning the rate of drug loss is proportional to the amount of drug present in the body at any point in time. In other words, the time interval to reach one-half of any initial concentration will be the same regardless of that concentration, *i.e.*, the time interval to reach the concentration 3.5 units/volume starting from 7 units/volume is the same as that required to reach 1.75 units/volume starting from 3.5 units/volume. This time interval is called the plasma half-life. Because the elimination is an exponential function, plotting the log of the plasma concentration versus time will result in a straight line, as illustrated in Figure 5.

Changes in elimination half-life during development may be illustrated with two familiar and commonly used drugs, penicillin G and digoxin. Although penicillin is familiar to all physicians,¹⁰ few elimination data exist for infants older than three weeks, children, and adolescents. However, from the available published data,¹¹⁻¹³ the graph in Figure 6 was compiled. The published data on digoxin half-life in children¹⁴ are summarized in Figure 7, with adult half-lives for comparison. These compiled data suggest that children within a certain age range have shorter elimination half-lives than adults. This phenomenon has also been observed with several other drugs.^{3, 6, 8, 15} The age localization of this "half-life dip" is extremely important, not because of toxicity, but because of the potential for undertreatment due to faster than expected elimination. As will be shown below, more rapid elimination requires an increase in drug dose per 24 hours, if equivalent blood levels are to be maintained.

At this point, the concept of apparent distribution volume needs to be illustrated. For that purpose, visualize a container with water to which a bolus of dye

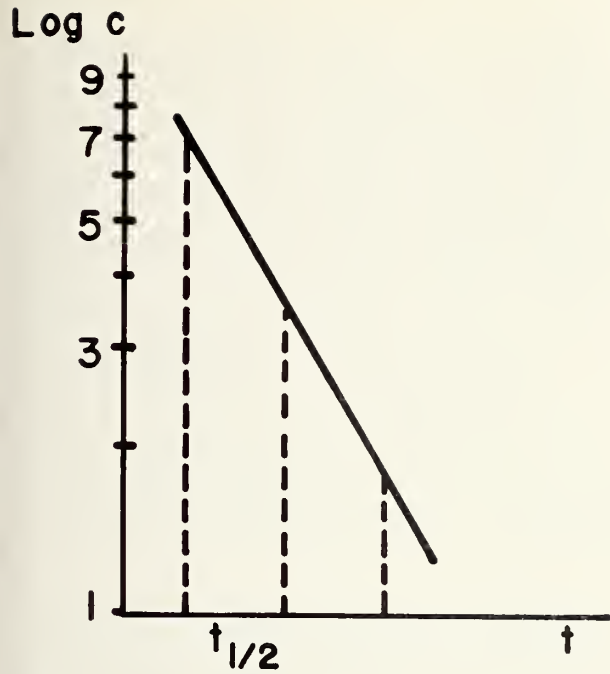


Figure 5. Plot of decrease in plasma concentration of a hypothetical drug with time following a single dose. The slope of the line is the elimination rate constant (K_e).

has been added (Figure 8). If the dye concentration is continuously measured at the point the bolus has been added, a decrease of the dye concentration will be observed until the dye has been distributed equally throughout the water. When the dye concentration in the water has reached equilibrium, the volume of distribution of the dye may be estimated according to: $V_d = \frac{D}{C_{equ}}$, where V_d = distribution volume, D = amount of dye added, and C_{equ} = the concentration of dye at equilibrium. This is analogous to the clinical use of Evans Blue or iodinated albumin to measure blood vol-

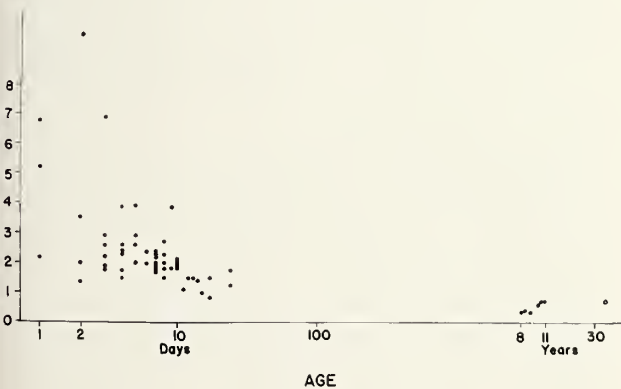


Figure 6. Serum half-life of penicillin G plotted as a function of age. The age axis is compressed on a log-scale for convenience.

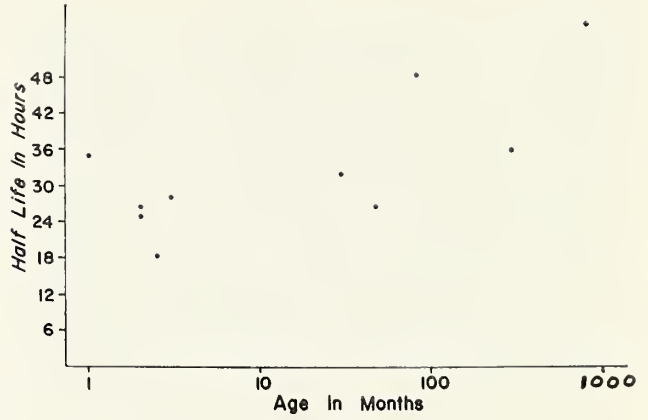


Figure 7. Serum half-life of digoxin in relation to age. The age axis is compressed on a log-scale for convenience.

ume, where the calculated distribution volume corresponds to an anatomical space. In contrast, if a charcoal plate, as an adsorbent, is placed in the container with water and the experiment repeated, a biphasic decline of dye concentration will be observed. The initial, more rapid decline in dye concentration is mainly caused by equilibration in the water compartment; the

apparent distribution volume

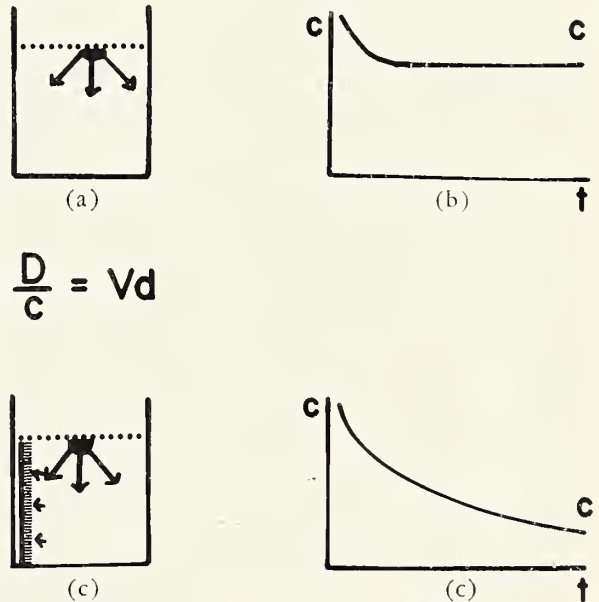


Figure 8. Distribution volume. (a) A container of water to which has been added a bolus of dye. (b) Change of dye concentration with time when measured at the point of addition of the dye. (c) The change in distribution of the dye and the resulting concentration versus time curve following insertion of a charcoal plate which adsorbs the dye.

later, slower decline reflects binding of the dye to the charcoal plate. An equilibrium concentration is reached eventually which is smaller, because much of the dye is bound to the charcoal plate. If the distribution volume is estimated using the equation: $V_d = \frac{D}{C_{equ}}$, it will appear to be much larger than the water volume. This is defined as the "apparent distribution volume," a useful and necessary concept in arriving at rational drug dosages as described below. The apparent distribution volume represents a correlation factor between the plasma concentration of a drug and the amount of drug in the body^{16, 17} and may, but frequently does not, correlate with a specific anatomical space.

The product of apparent distribution volume and the elimination rate constant (K_e) represents the clearance of a substance. K_e is related to the half-life according to the equation: $K_e = \frac{.69}{t_{1/2}}$. Accordingly, clearance may be defined according to the equation: $Cl = V_d \times \frac{.69}{t_{1/2}}$. Any known changes in clearances of endogenous or exogenous substances with age could possibly be related to drug clearances and drug half-lives, and might help to predict them. The two major clearance organs of the body are the kidneys and the liver. There are few published data relating to changes of hepatic clearance with age and, consequently, such changes are not commonly appreciated. The changes of bromsulphalein (BSP) clearance with age, based on published data,^{9, 18} are illustrated in Figure 9. The clearance, expressed as ml/min/kg body weight, is similar in the newborn and young adult. However, the clearance rises dramatically during the first 90 days of age, and remains approximately twice that of the young adult to the age of 14 years. Likewise, although the age dependency of renal clearance adjusted for body surface area appears to be constant after the age of two years through young adulthood,¹⁹ some data exist which show a preponderance of high values in the age group 2-8 years.²⁰⁻²² These hepatic and renal clearance data may explain, in part, the more rapid elimination of some drugs which has been reported at certain ages.^{3, 6, 8, 9, 11, 14, 15} Likewise, they may be related to the clinical observation that higher doses of some drugs are necessary to achieve the desired clinical effect or plasma level in children as compared to young adults.^{5, 6}

The principles outlined in the foregoing discussion have little relevance for the practicing physician unless they can be applied in the day-to-day administration of medication to patients. The relationship between drug dose (D), fraction of the administered dose which is absorbed (F), dosing interval (τ), apparent volume of distribution (V_d), elimination rate constant (K_e),

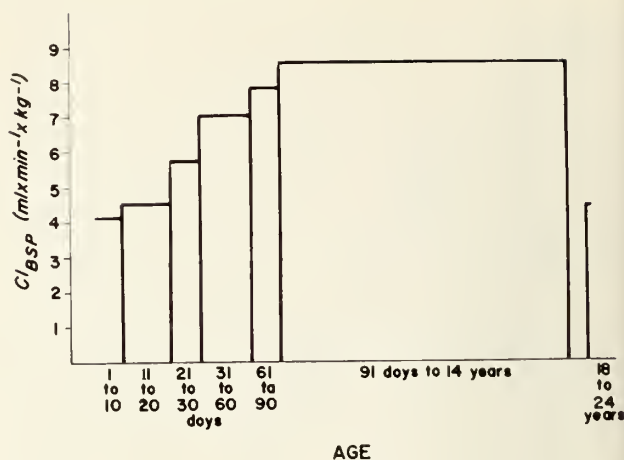


Figure 9. BSP-clearance in ml/min/kg plotted as a function of age. The age axis is compressed on a log-scale for convenience.

and plasma concentration at equilibrium (C_{equ}) is expressed in the equation: $C_{equ} = \frac{F \cdot D/\tau}{V_d \cdot K_e}$. The fraction of the dose absorbed is chiefly determined by the physicochemical characteristics of the drug, the dosage formulation, and the route of administration. The apparent distribution volume and elimination rate constant are characteristics of a particular drug for any given patient receiving that drug. These parameters change with age and may change during certain disease states. Taking these variables into consideration, it is the physician's responsibility to determine the dose and dosing interval which will provide the desired concentration of drug in the plasma, and presumably at the receptor site. For example, an increase in the apparent distribution volume of a drug with age will require a proportional increase in dose. Likewise, an increase in the rate of elimination with age must be accompanied by a corresponding increase in dose. The rate of elimination also determines the optimal dosing interval. A drug which is rapidly eliminated must be administered more frequently than a drug which is slowly eliminated, if wide fluctuations in plasma concentration between doses is to be avoided.

Unfortunately, the determination of optimal dosage regimens for children of all ages remains difficult at the present time, since apparent volumes of distribution and rates of elimination at various ages are known for very few drugs. However, as physicians become increasingly aware of the principles essential to rational determination of drug dosage, and as the necessary information on specific drugs is accumulated, drug dosage schedules will become increasingly effective and safe for individuals of all ages.

Summary

Drug doses for children of different ages have been determined largely on an empirical basis and by extrapolation from adult doses. This approach is frequently not satisfactory. The principles which determine drug absorption and disposition in the body and their changes with age have been discussed. Application of these principles to the determination of drug doses for children will provide more effective and safe dosage schedules for individuals of all ages.

Acknowledgment

Computer generated curves for absorption of a hypothetical drug were provided by Don Shoeman, Ph.D., Assistant Professor of Pharmacology, KUMC.

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Vox Dox

Vox Dox Editor:

Abortion has proven to be as effective as the guillotine to cut down the numbers of a supposedly mistreated and starving population. Both innovations were developed by physicians. Both were used legally.

But why is it necessary for our government to appropriate billions of dollars for research on a cure for cancer, which if successful would in itself over-populate the world even more? Why not let God continue with his own program regarding the overpopulation of the world?

Of course, we could give God a little nudge by the use of euthanasia—now that we are pretty sure that a reasonable and sane jury will not convict us of murder. In fact, it might even eliminate the necessity of having a PSRO. But, of course, we wouldn't have an excuse to get drunk for a week (but maybe we should go modern and say we wouldn't have an excuse to go on a bender for a week with, say, heroin, morphine, or LSD, etc.).

On that little bender we could discuss such iniquities as the Watergate affair, and how the low-Gallup-poll-rating politicians are now in control of the running of the medical profession.

A. S. REECE, M.D.
Gardner, Kansas

Chronic Active Hepatitis

A Clinicopathologic Study of 34 Cases at KUMC

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CHRONIC ACTIVE HEPATITIS is currently defined as "a disease of unknown etiology, predominantly affecting young women, which has a variable but unremitting course characterized by the clinical, laboratory, and histologic changes of both acute and chronic hepatitis."¹ Since the cause is unknown and the histological changes, like the clinical course, are variable, it has been difficult to formulate a precise description of the disease. The present study of selected cases from the Kansas area was undertaken in an attempt to elaborate and clarify certain aspects of chronic active hepatitis.

Materials and Methods

Cases were selected from the Department of Medical Records and from files of the Department of Pathology of Kansas University Medical Center, from 1962 to 1972, with the following criteria: (1) Evidence of acute and chronic inflammatory changes with or without gross or microscopic evidence of cirrhosis from biopsy or autopsy; (2) A clinical course of at least 3 months duration; (3) The presence of at least one of the following extrahepatic manifestations: arthritis, colitis, thyroiditis, chronic glomerulonephritis, lupus erythematosus (LE) cell phenomenon, skin rash, acne, abdominal striae, allergies. (Progression of the disease as evidenced by serial liver biopsies and clinical course can replace this criterion in cases which did not have prominent extrahepatic manifestation.); (4) The absence of a known cause, such as: alcoholic hepatitis, Wilson's disease, hemochromatosis, infectious mononucleosis, chemical hepatocellular injury, or extrahepatic biliary tract diseases.

The medical records of each patient were reviewed and the principal features tabulated (*Table I*). The serial biopsy and autopsy slides were examined carefully. Followup clinical information was obtained either from clinic records or from personal communications.

Results

Anatomical Pathology

Since gross abnormalities could be ascertained only in

cases of laparotomy or autopsy, greater emphasis was placed on microscopic changes.

The histology of chronic active hepatitis is not uniform and probably depends on the stage of the disease and on variations in host response. The histologic features of 34 initial biopsy specimens are summarized in *Table II* in two distinct major groups. Cases with perilobular piecemeal necrosis (group 1) accounted for 58 per cent of all the cases (*Figure 1*). Most of them presented with acute and chronic inflammation with prominent plasma cell infiltration, fine septal fibrosis, balloon degeneration, and evidence of regeneration. Fifty per cent, however, were noted to have numerous neutrophils. Pericellular fibrosis and lobular collapse were uncommon. Three cases were found to have early cirrhosis at the initial biopsy.

Cases with diffuse intralobular patchy necrosis (group 2), many of which had initially been interpreted as acute viral hepatitis, tended to have foci of pericellular fibrosis and lobular collapse (*Figures 2, 3*). Nonetheless, plasma cells were encountered frequently and balloon degeneration was not uncommon in this group. There appeared to be no difference between the two groups in the incidence of cholestasis, which seemed to reflect the degree of glandular transformation of hepatocytes and bile duct

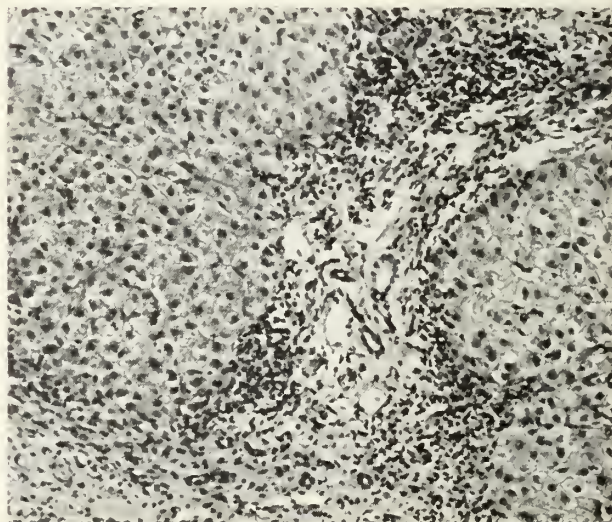


Figure 1. Photomicrograph of liver, perilobular piecemeal necrosis (H & E stain, 120 \times).

From the Department of Pathology and Oncology.

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TABLE II
HISTOLOGIC FEATURES OF INITIAL LIVER
BIOPSIES OF 34 PATIENTS WITH CHRONIC
ACTIVE HEPATITIS

	<i>Perilobular Piecemeal Necrosis (20 Cases)</i>	<i>Diffuse Intralobular Patchy Necrosis (14 Cases)</i>
Inflammatory reaction with		
Prominent plasma cells	16	12
Prominent neutrophils	10	10
Prominent eosinophils	4	3
Lymph follicles	3	1
Fibrosis		
Fine septal +	15	0
++	2	0
+++	3	0
Pericellular +	2	10
++	0	3
+++	0	1
Councilman bodies	0	2
Lobular collapse	3	8
Balloon degeneration	12	6
Cholestasis	7	11
Glandular transformation of		
hepatocytes	4	9
Bile duct proliferation	4	9
Regeneration		
Giant cells	10	10
Nodules	2	0
Steatosis	5	1

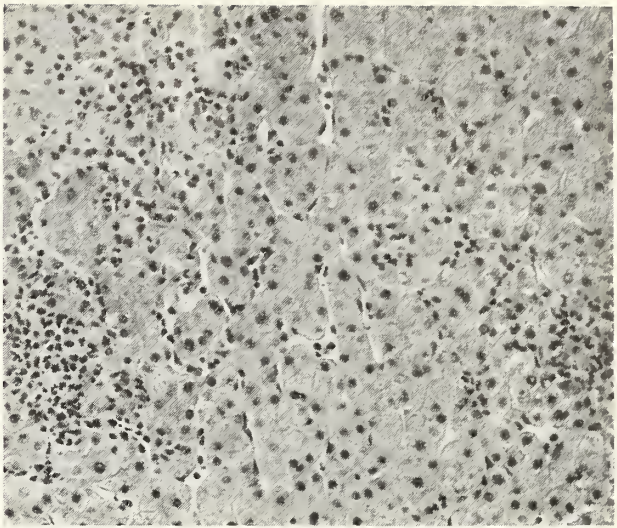


Figure 2. Photomicrograph of liver, intralobular patchy necrosis (H & E stain, 120 \times).

of difficulty in physical examination. The frequency of extrahepatic manifestations (such as acne, abdominal striae, amenorrhea, thyroiditis, carditis, colitis [including chronic diarrhea], arthritis, and renal involvement) is specified in *Table III*.

Selected enzyme determinations and immunoglobulin levels are shown in *Table I*. In most cases, IgG was increased at least two-fold. IgA and IgM were increased to a lesser degree. The LE cell phenomenon was positive in 16 of 34 cases (47%). There appeared to be some relationship between elevation of immunoglobulins and positivity of the LE test in this study.

The clinical course ranged from 3 months to 14 years. There was not a fixed pattern in this series. Most cases

proliferation. Councilman bodies were occasionally seen in group 2.

Followup biopsy specimens and autopsy material also revealed histological difference between the two groups. Cases with diffuse intralobular patchy necrosis frequently progressed to diffuse, massive, hemorrhagic necrosis (multilobular collapse), or multifocal necrosis with slight fibrosis at time of autopsy (*Figure 4*). Several of those with typical perilobular piecemeal necrosis had coarse nodular cirrhosis, although, in some, a typical portal cirrhosis was found. The nodules were fairly uniform and ranged from 0.1 to 0.3 cm in diameter. Histologically, there was marked fibrosis in the portal areas with collagen fibers extending to adjacent portal areas and some to central veins. Little bile duct proliferation was noted (*Figure 5*).

Clinical Features

Hepatomegaly was present at the time of diagnosis in 62 per cent, while splenomegaly was noted in 38 per cent. Some patients with ascites were excluded because

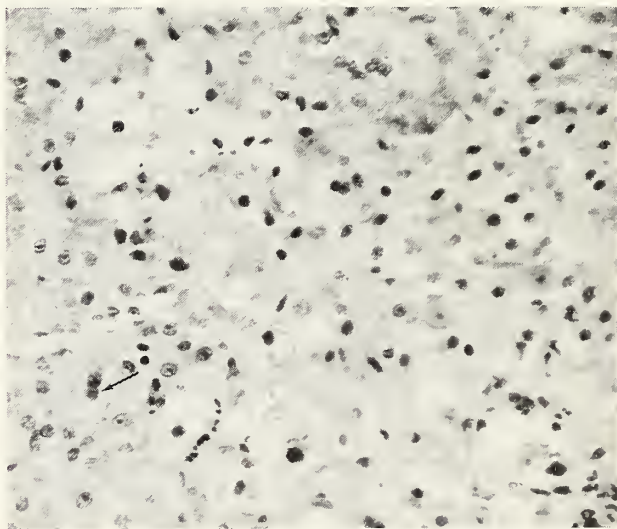


Figure 3. Photomicrograph of liver, balloon degeneration and Councilman bodies (arrow) (H & E stain, 160 \times).

TABLE I
SUMMARY OF CLINICAL FEATURES

Case No.	Age Sex	Duration of Illness	Globulins										Other Features			
			LE	HBAg	ANA	SGOT	SGPT	LDH	TOTAL GM%	IgG	IgA	IgM		Bilirubin TOTAL	Alk. Phos. DIRECT	
1.	11 F	14 mos	-	-	1:160	628	388	908	7.15	4,000	340	100	7.6	5.8	73	Spider nevi, hepatomegaly, jaundice
2.	45 M	1 yr	-	-	-	105	22	396					2.0	1.0	30	Allergic to penicillin, ulcerative colitis, hepatomegaly
3.	16 F	3 mos	+	-	1:20	224	116		6.4	5,000	460	98	1.9	0.7	7.8	Jaundice, spider angiomas, splenomegaly, ? needle exposure (drug abuse)
4.	11 F	1 yr	-	-	-	1,220	322	1,152		2,400	190	360	2.9	1.1	6.0	Allergic to sulfa drugs, rubella vaccination 3 wks prior to onset of disease, jaundice, hepatosplenomegaly
5.	*55 F	2 yrs	-	-	1:640	580	280	1,172	3.5	2,200	390	98	35.7	25.8	9.1	Allergic to penicillin, chronic diarrhea, lymphoid thyroiditis, acute pancreatitis
6.	*57 F	3 mos	-	-	-	1,580							11.7	9.7	27	Jaundice, skin eruptions, hepatomegaly, sickle cell (+)
7.	*19 F	3 mos	+	-	-	1,500	1,000	1,124		3,900	600	200	25.8	15.6	8.5	Acne, arthritis, jaundice, hepatosplenomegaly
8.	*63 F	32 mos	-	-	1:80	250	68						3.5	1.5	16.9	Allergic to sulfa drugs, jaundice, ascites
9.	22 F	4 yrs	-	-	-	296	274	511		300	465	280	Norm.	Norm.	12.0	History of blood transfusion, skin rash, arthritis, ulcerative colitis, jaundice, hepatomegaly
10.	*13 F	6 yrs	-	-	-	1,820			4.9	3,000	440	182	9.0	4.6	4.3	Amenorrhea, striae, jaundice, hepatosplenomegaly
11.	56 M	2 yrs	-	-	-	62	34	919		2,500	900	260	5.2	1.8	8.6	Jaundice, ascites
12.	11 F	2 yrs	+	-	-	97	586	925					0.9		9.9	Arthritis, jaundice
13.	*32 F	2 yrs	-	-	-	83	36	532	3.8				9.2	4.7	57	Amenorrhea, malabsorption, hepatomegaly, ? scleroderma
14.	18 F	6 yrs	+	-	-	600	393	800	3.8	4,000	215	110	3.4	1.4	2.5	Acne, striae, Cushingoid face, jaundice, hepatomegaly
15.	*25 F	2 yrs	-	-	1:20	81	26	10,000					2.6	0.7	7.6	Striae, arthritis, (+) indirect Coombs' test

16.	*55 F	14 yrs	-	179	153	400	4,600	1,000	195	2.4	0.9	12	Jaundice, hepatosplenomegaly	
17.	17 F	1 yr	-	1,000	114					0.7		6.2	Arthritis, striae, hepatosplenomegaly	
18.	84 F	3 yrs	-	812		585				8.3	5.5	7.9	Arthritis, jaundice	
19.	6 F	2 yrs	-	1,200		1,160	4.2	2,200	86	13.4	7.8	13.8	Palmar erythema, hepatosplenomegaly	
20.	*36 F	3 mos	+	340	592	1,320	2.2	2,000	300	175	14.2	8.7	7.7	Jaundice, hepatosplenomegaly, renal failure
21.	60 F	7 yrs	-	825						27.0	10.6	2.8	Arthralgia, jaundice, hepatomegaly	
22.	*71 F	3 mos	+	748						20.6	11.9	4.4	Hepatomegaly	
23.	5 M	2 yrs	+	2,420	930	1,466	4.5	4,800	-	180	20.6	11.4	9.0	Hepatomegaly, ascites, jaundice
24.	52 F	4 yrs	+	720		750		2,700	395	81	14.8	7.8	3.8	Jaundice, hepatomegaly
25.	*65 F	3 mos	+	99			5.3			6.4	3.5	2.6	History of blood transfusion, arthritis, hepatosplenomegaly	
26.	18 F	10 yrs	+	510	515	792				5.9	3.2	4.6	Acne, jaundice	
27.	44 F	1 yr	+	250	38	145				2.4	0.9	12.4	Spider nevi, ascites	
28.	52 F	11 yrs	-	228	100		8.8			0.7	0.2	13.2	Sjögren's syndrome	
29.	34 F	6 yrs	+	495			4.5			4.5	2.5	23	Acne, skin rash, ulcerative colitis	
30.	55 F	2 yrs	+	63		566				0.7	0.1	6.4	Rheumatoid arthritis, splenomegaly	
31.	*28 F	11 mos	+	840	300	994				11.5	7.9	10.8	Rheumatic carditis, lymphoid thyroiditis	
32.	*16 F	3 yrs	+	248		77				1.7	0.7	6.3	Spider nevi, acne, rash, hepatomegaly	
33.	53 F	1 yr	-	99	95	394		1,300	268	560	0.7	0.3	17.5	Allergic to sulfa drugs, hepatosplenomegaly
34.	16 F	4 yrs	+	915	44	930	7.2	4,000	385	140	15.0	3.3	1.3	Acne, ulcerative colitis, lymphoid thyroiditis, hepatosplenomegaly
Mean	36 ± 3.7 yrs	3.1 ± 0.5 yrs		621 ± 98	279 ± 58	1,201 ± 398	5.2 ± 0.8	3,056 ± 334	451 ± 59	257 ± 65	9.1 ± 1.6	5.3 ± 2.1	13.1 ± 2.1	
SD				10-33	5-35	250-600	1.9-2.8	700-1,400	288 ± 121	50-125	0.2-1.0	0-0.2	1.4-5.4	
Normal														

N.B. F = female; M = male; LE = lupus erythematosus cell phenomenon; HBsAg = hepatitis B antigen; ANA = antinuclear antibody; SGOT = serum glutamic oxaloacetic transaminase; SGPT = serum glutamic pyruvic transaminase; LDH = lactate dehydrogenase; Alk. phos. = alkaline phosphatase; * = expired.

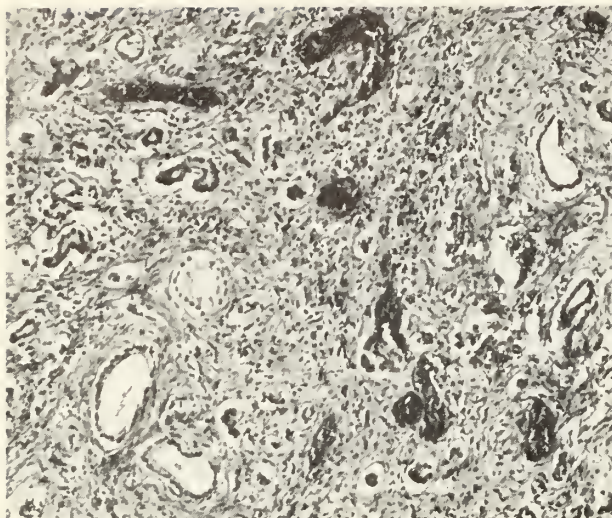


Figure 4. Photomicrograph of liver, hemorrhagic necrosis and bile duct proliferation (H & E stain, 120 \times).

had a slow but progressively deteriorating course. Thirty-eight per cent of patients died of hepatic failure in 3 months to 14 years after remissions and exacerbations. The age distribution at the time of diagnosis is shown in *Table IV*.

The clinicopathologic correlations in the two major groups are summarized in *Table V*. Those patients whose biopsies revealed typical perlobular piecemeal necrosis had a higher incidence of positive LE phenomenon and greater elevation of IgG. Cases with positive LE cells and prominent plasma cell infiltration appeared to correlate well with the degree of γ -globulin elevation. Those displaying intralobular patchy necrosis had a lower IgG and higher SGOT.

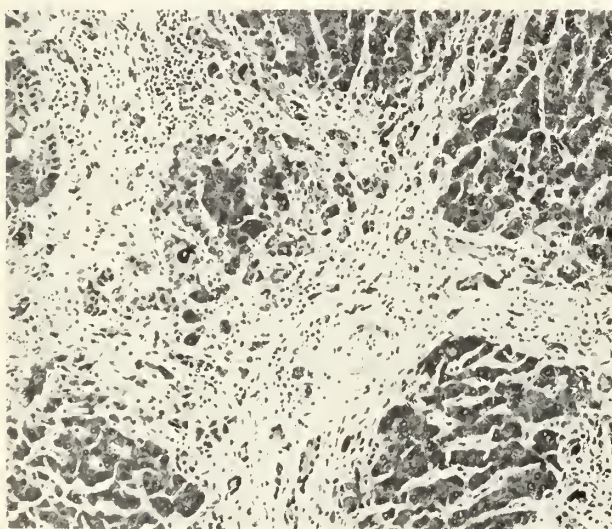


Figure 5. Photomicrograph of liver, portal cirrhosis (H & E stain, 120 \times).

TABLE III
EXTRAHEPATIC MANIFESTATIONS

	%
1. Acne and skin rash	24
2. Abdominal striae and Cushingoid face	12
3. Amenorrhea	9
4. Arthritis and arthralgia	21
5. Ulcerative colitis (including malabsorption) ..	15
6. Lymphoid thyroiditis	12
7. Carditis	3
8. Chronic glomerulonephritis	3
9. LE cell phenomenon	47
10. History of allergy	15

TABLE IV
AGE DISTRIBUTION

	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-84
No. .	2	11	3	3	2	9	3	1
% ..	5.9	32.3	8.8	8.8	5.9	26.4	8.8	2.9

Table VI shows the comparisons of some features of chronic active hepatitis between adults and children. It is interesting to note that the pediatric group had a marked elevation of SGOT and more frequent perlobular piecemeal necrosis in liver biopsies. Most pediatric cases had an abrupt onset and were initially diagnosed as acute viral hepatitis by local physicians. The diseases in adults had a relatively insidious onset.

TABLE V
CLINICOPATHOLOGIC CORRELATIONS IN TWO MAJOR GROUPS WITH CHRONIC ACTIVE HEPATITIS

	Perilobular Piecemeal Necrosis (20 Cases)	Intralobular Patchy Necrosis (14 Cases)
Positive LE test	55%	43%
SGOT level (mean, unit/ml) ..	498	726
γ -globulin IgG	3,160	2,883
(Mg %) IgA	393	470
IgM	219	182

Hepatitis-associated antigen was not detected in any of those cases screened for its presence.

TABLE VI
COMPARISONS OF SOME FEATURES IN
CHRONIC ACTIVE HEPATITIS BETWEEN
ADULTS AND CHILDREN

	<i>Adults</i> (28 Cases)	<i>Children</i> (6 Cases)
Presence of perilobular piecemeal necrosis	53%	83%
Presence of LE phenomenon . . .	53%	33%
SGOT level (mean, unit/ml) . .	440	1,230
γ -globulin IgG	3,045	3,288
(Mg %) IgA	489	276
IgM	199	181

Discussion

The findings of this study appear to support the concept that chronic active hepatitis is a spectrum of disorders caused by several factors, namely: viral infection, immunologic disorder, or drug toxicity or hypersensitivity.

In this series, 42 per cent of the patients presented with patchy, intralobular hepatocellular necrosis, a histological pattern indistinguishable from classical acute viral hepatitis. The concept that chronic active hepatitis might be the prolongation or sequela of acute viral hepatitis was supported by the large series showing antecedent infectious hepatitis in cirrhosis.^{2, 3} Recent long-term followup studies, nevertheless, showed that there was little difference in the risk of developing cirrhosis in people with a history of acute viral hepatitis and those without such a history.⁴ Followup liver biopsies in a large series also showed no significant difference between people with acute viral hepatitis and the controls,⁵ while the risk of cirrhosis in chronic active hepatitis is extremely high,⁶⁻⁸ 38 per cent in our series. Furthermore, 10 to 25 per cent of patients with chronic hepatitis were reported to have HBAG (in our series none of the six cases screened was positive for HBAG by complement fixation method).⁹⁻¹¹ Popper and Mackay¹² proposed a plausible hypothesis, suggesting that "host proteins associated with hepatitis-B antigen particles represented antigens which initiated autoimmune aggression in some forms of liver diseases." Some animal models have been used in an attempt to demonstrate an immune disorder. Nonspecific changes including focal necrosis, granulomas, and inflammatory changes in the portal areas were found in guinea pigs injected with liver extract.¹³ Dobias and Balazs¹⁴ were able to demonstrate hepatic lesions in rabbits immunized with rat liver mitochondria. It was claimed that inflammatory changes, perilobular septum formation, bile duct

proliferation, and piecemeal necrosis were seen. Some of the changes, however, were also observed in rabbits given normal rat serum. It is felt that the exact etiology of chronic active hepatitis needs further investigation. One explanation for the absence of HBAG in this series is that the antigen can wax and wane though it may persist in the blood for a few days to months or years.¹⁵ Some of the patients might have been positive at one time. Also, some patients died before HBAG determinations were available.

Another striking feature is that several of the patients had a history of allergy to sulfa drugs and penicillin. This may imply that hypersensitivity plays a role in the disease process. The following is an example in which the patient's allergic condition and recent history of rubella vaccination may have been related to the abrupt onset of chronic active hepatitis.

Case One

An 11-year-old white female, who had received a rubella vaccination in early May 1971, was noted to have jaundice and fatigue three weeks later. She was treated with iron pills until intermittent vomiting, dark urine, and fever were observed in early August of the same year. At this time, hepatosplenomegaly and abnormal liver functions were noted as follows: serum glutamic oxaloacetic transaminase (SGOT), 1,220 units/ml; serum glutamic pyruvic transaminase (SGPT), 332; lactate dehydrogenase (LDH), 1,552; bilirubin, 2.9 mg/100 ml, with direct 1.1 mg/100 ml. Liver biopsy three months after onset of the symptoms showed chronic active hepatitis with early cirrhosis (*Figure 6*). The patient developed a skin rash when given sulfa drugs. She also had a sister who had asthma. One year followup revealed that she developed esophageal varices and ascites.

Comment

It is of great interest to see that most patients (70%) with chronic active hepatitis had significantly high titers of rubella and morbilli (2,560 or more) in Norway.¹⁶ However, there is no conclusive evidence to support a relationship between rubella vaccination and chronic active hepatitis.

Even though several cases of chronic active hepatitis have been reported to be caused by a laxative (oxyphenisatin),¹⁷ such a case was not present in our series.

Diagnosis

The histologic criteria to differentiate chronic active hepatitis from chronic persistent hepatitis have been proposed in study of a large series with long followup.¹⁸ In our series, there were 58 per cent of the cases which showed perilobular piecemeal necrosis; consequently, we

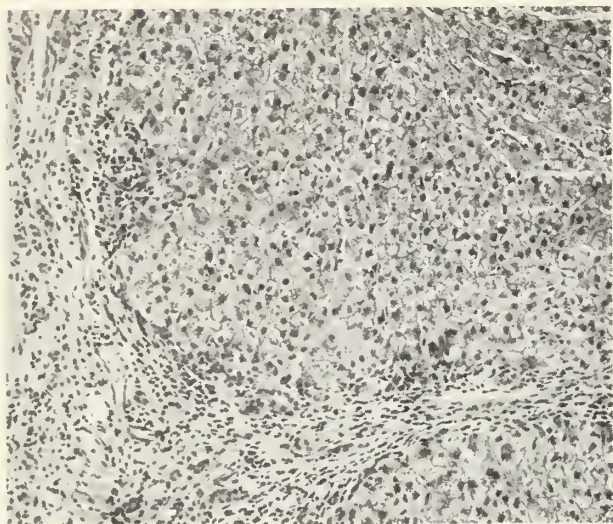


Figure 6. Photomicrograph of liver (case 4), chronic active hepatitis with early cirrhosis (H & E stain, 120 \times).

tend to consider its presence not a *sine qua non* for the histologic diagnosis of chronic active hepatitis. This is consistent with Baggenstoss study, in which some cases had stigmata of viral hepatitis.⁶ When present, however, piecemeal necrosis is very helpful in making the diagnosis. We also share the feeling that false negative findings can occur in needle biopsies, because our autopsy material showed markedly different histological abnormalities in different portions of the same liver. Moreover, a needle biopsy from a regenerating nodule can be very misleading. Thus, despite the liver biopsy showing changes typical of acute viral hepatitis, the presence of concomitant extrahepatic manifestations, history of allergic conditions and collagen diseases should lead one to check for LE cells, γ -globulin level, and abnormal antibodies in order to rule out chronic active hepatitis. A followup liver biopsy at a three-month interval, together with close observation of the clinical course, can be very helpful in ambiguous cases.

The following is an example in which the clinical course and extrahepatic manifestations were hints for further evaluation.

Case Two

A 28-year-old white female had an acute onset of jaundice, light stools, anorexia, and abdominal discomfort in March 1969, at which time she was diagnosed as having acute viral hepatitis. She recovered completely in two weeks. Four months later, however, much more severe symptoms recurred and a liver biopsy revealed patchy necrosis with a few Councilman bodies in the cytoplasm of the degenerating hepatocytes. Mixed cellular infiltrate was also noted. The histologic changes were compatible with recurrent acute viral hepatitis. A

review of systems showed that the patient had Hashimoto's thyroiditis and rheumatic fever, diagnosed in 1961 and 1954 respectively. Further studies revealed that LE cells were present and γ -globulin increased. The clinical course was one of progressive deterioration. The patient expired in February 1970. Cirrhosis was present at autopsy.

Treatment

The use of corticosteroids and other immunosuppressive agents is the current management for chronic active hepatitis.^{7, 19, 20} This management may prolong the clinical course but does not appear to cure or prevent cirrhosis of liver. In this series, all the patients were managed in this fashion and the results were rather variable. The following two cases illustrate the contrast in clinical response.

Case Three

An 18-year-old white female developed diarrhea, anorexia, and weight loss at the age of 8, after receiving Tridione medication to control petit mal seizures. SGOT, SGPT, and alkaline phosphatase were markedly increased. LE cells were present. Exploratory laparotomy with liver biopsy confirmed the diagnosis of chronic active hepatitis. She was then treated with steroids and responded well. LE cell phenomenon became negative. The patient had a recurrence of symptoms and positive LE cells seven years later, when again she was treated with steroids with good response. The ten-year followup revealed that the disease process waxed and waned, but did not appear to be cured.

Case Four

A 19-year-old black female had malaise and anorexia with progression to nausea, vomiting, and diarrhea in May 1971. She also complained of arthralgia in both knees, light colored stools, and dark urine. Hepatomegaly was noted on admission. Laboratory findings were as follows: SGOT, 244; IgG, 3,900 mg; bilirubin 22.6 mg/100 ml, with 13.9 mg/100 ml direct. LE cells were present. Coombs' test was also positive. She was treated with steroids, among other medications, but the clinical status did not improve. Autopsy revealed massive collapse of hepatic cords, cirrhosis, bile duct proliferation, and lymphocyte infiltration.

Comment

"Lupoid hepatitis" was once considered an entity,²¹ but a recent study suggested that the features of LE (+) patients with chronic active hepatitis represented "more acute and severe disease rather than a specific cause, syndrome or variant of chronic hepatitis."²² As shown in the criteria, this study considered the hepatocellular

changes as a major criterion and LE cell, among others, a minor criterion since the presence of LE cells merely indicates the existence of autoantibodies to leukocytes and may be associated with any conditions with abnormal antibody production. Nonetheless, the presence of LE cells in this study did not parallel the severity of the disease. It is considered as one of the extrahepatic manifestations which suggests an immune disorder.

Even though serum albumin was found to have a significant increase with concomitant fall in γ -globulin level in 80 per cent of 13 patients on low doses of azathioprine,¹⁹ it is felt that the use of azathioprine should be weighed against the risk of its toxicity, since irreversible liver damage could occur after azathioprine treatment.²³

Adults vs Children

The mean SGOT of 1,230 units in children compared to 440 units for the adults is striking. Though the number of children among our cases was small, we have the impression that this difference might have been related to the frequent acute onset of the former, as acute hepatic destruction gives more rapid increase of SGOT than the smoldering onset.

Other reports,^{1, 24} however, claimed that no correlation between degree of SGOT elevation and type of onset was noted. Contrary to the one report,²⁴ the less frequent LE phenomenon in the pediatric group than in adults is intriguing, though the explanation is not known.

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ABSTRACTS SOLICITED

A call for abstracts has been announced by the American College of Chest Physicians. Physicians and surgeons are invited to submit abstracts of papers relating to the disciplines of circulation, respiration and thoracic-cardiovascular surgery. Accepted abstracts will form the basis for presentations at the 40th Annual Scientific Assembly to be conducted by the College in New Orleans, November 3-7, 1974. Presentations at the Scientific Assembly will be limited to 10 minutes, with an additional two minutes for discussion. The deadline for submitting abstracts to the College is April 30, 1974. All applicants will be notified of the decision made by the Scientific Program Committee within six weeks after the deadline.

Submission of abstracts, as well as inquiries on details of requirements, should be directed to: John T. Sharp, M.D., Chairman, Scientific Program Committee, American College of Chest Physicians, 112 E. Chestnut Street, Chicago, Illinois 60611.

The President's Message

I would like to take this opportunity to congratulate the University of Kansas Medical School for the tremendous work they have done in educating physicians in their system. I feel that there has been closer cooperation between the Medical School and the Kansas Medical Society during the past few years than there was a few years ago. Liaison committees have been established between these two groups. I believe that most of the problems have been ones of communication, and it seems to me the barriers for this problem of communication are beginning to break down. We are beginning to see the enlargement of the Medical School training program to include Wichita and the three hospitals there, and increasingly we are beginning to see a training for residents in the rural areas of Kansas. I feel that this concept should be enlarged to include a multitude of small towns in Kansas.

We will still continue to have differences of opinion as to how these young people should be trained, the particulars of the educational programs they go through, and the attitude changes that are common between the differences in ages and philosophies.

The University of Kansas is a part of the educational system of Kansas, and as such should reflect the total geographic and population areas of the entire state of Kansas.

I would like to pay particular recognition to the Executive Vice Chancellor, Dr. William O. Rieke, who, although he has had a multitude of trials and tribulations during his relatively short stay with us, has



exhibited remarkable awareness in his efforts to make our University of Kansas Medical Center a tremendous facility. The Medical Society can think of no one who had done a better job for us.

Thomas F. Taylor

President



Editorial COMMENT

(Editor's Note: Scholars have recently completed translation of a scroll unearthed in a remote archeological dig in Outer Transformania. While not the equal of the Rosetta Stone, it offers insight into the ways of life in an ancient and exotic culture.)

And it is still known to some of our Elders that there was a time when the chiefest homage was paid to Billikin, who was revered as the God of Things as They Ought to Be. And the people of the tribe did count it a great blessing to be possessed of a billikin which was a votive image which endowed the possessor with the joys of that blessed state.

And it happened that in the tribe there was a maker of billikins, one Abba, who, with his sons, Dabba and Dingdingding, labored diligently and worthily, for which they were rewarded with great respect and many goats.

And time passed and Abba and his sons prospered and took into their shop many apprentices, for the tribesmen deemed it an honor that their sons should be called to this service. And when their one-and-twenty seasons had been accomplished, the apprentices went forth among the people and so the production of billikins advanced and the tribe was envied for the high state of its billikin culture.

And Abba and his sons and his colleagues did deem it wise to associate themselves in a Guild where they might relate their experiences one unto another and ever increase the virtue of their billikins, each saving only an occasional secret for his own use since, of course, billikin-making was counted an art, not a science.

And it came to pass that one day, the Sharif of the Tribal Council came to Abba and spake saying, "Abba, the great and mystic power of thy billikins is known throughout the land. The Council honors thee as first among the billikin-makers. But, Abba, there are those among the elderly of the tribe who have no billikins or are proffered only the basest culls of thy apprentices." "Ei, ei," wailed Abba. "Have we not labored long and honorably to provide our people with the

finest of billikins (and who should know better than we which are the finest)? Are we called to account if the tribe has not shared with these unfortunates enough goats to trade for the finest billikins such as thou thyself procurest? Are we at fault because they are shunted to the outskirts of the settlement and cannot get to our shops to procure billikins?"

"Thy wailing is as the squalling of the old women at the watering place," replied the Sharif. "The Council hath decreed that the billikin-makers shall henceforth provide unto these ancients such types and numbers of billikins as they have need of, and from the tribal coffers thou shalt receive payment in accordance with what the Council deems reasonable and in accordance with thine own custom and upon the rendering of the appropriate parchments in threefold as shall support thy efforts. It shall be so and I shall leave thee if thou wilt ask this camel to get his nose out of the doorway."

And Abba was filled with grave forebodings and called the Guild together and did relate the words of the Sharif, whereupon there was great consternation among the billikin-makers. "Woe is us," they cried. "This is the end of billikin-making as we have known it. Even if we can supply as many billikins as this requires, we must needs hire many scribes to prepare the parchments which will then be scrutinized by some lowly clerk of the Council who knoweth naught of the mysteries of billikin-making before we are recompensed. And when the Council reckons the number of goats their madness shall cost, it will visit upon us great anger in return for our honest efforts. By the Beards of the Profits, we should refuse to do their bidding." Replied Abba, "We are without choice, since the Council hath so decreed. And anyway, that is supposed to be Prophets."

And so they departed amidst much grumbling and beating of breasts and invocations of the Demons upon the Council. And much that the billikin-maker feared became the order of the day.

Another Fable

And one day the Sharif again came to Abba saying, "Abba, the Council expresses great dismay that thou continueth to extract from the people repayment for their billikins according to their wealth and the type of billikins thou providest. Henceforth, thou shalt charge the same regardless of the type of clay or the embellishments thou placeth upon them. Moreover, thy apprentices cluster near the tents of the wealthy and go not into the outer reaches of the settlement to offer their billikins to the poor. It shall be that thou shall provide unto all, whoever or whither, billikins at the same price which shall be in keeping with your custom and acceptable to the Council which, in its munificence, shall recompense you from the tribal coffers on behalf of those who are without sufficient worldly goods. Incidentally, I shall expect that thou wilt continue to provide me with the Type A-1 Acme model, complete with movable parts and ruby embedded in the navel—in keeping with my position." And he took his leave paying no attention to the camel in the doorway.

And again Abba called the Guild together and disclosed the news, whereupon there was even greater consternation with cries of, "Oyweh, this is the end of billikin-making as we have known it. No longer can we have that noble and mysterious comradeship with our purchasers of billikins." And there was great anger with Abba that he had not told the Sharif to go herd his goats.

And some cried, "We shall band together and refuse to make any more billikins and depart from our shops." But others moaned, "This is a violation of our sacred duty as billikin-makers." And still others said, "We must band together and provide billikins only for those who pay in advance and as the payments allow." And there was much dissension in the meeting and ill will and lack of purpose, and Abba left with a heavy heart.

And it came to pass that once more the Sharif came to Abba's shop but caught him unawares as he came in the back door. "Abba," sayeth he, "it is more in sorrow than in anger that I come to thee but the billikin-makers continue to fail in their duty to the tribe. They accumulate wealth beyond that of the other artisans. They fail to provide to all members of the tribe, even unto the humblest and remotest, the fullest quality of their service. Now be aware that the tribal coffers have been sorely depleted by meeting the numerous parchments thy members have submitted."

And Abba moaned, "May thy goats have bloat. Is it not as I hath told thee it would be? Even now we have scarce room in our shops because of the number of scribes we must keep to meet thy parchmentwork." "Even so," retorted the Sharif, "the Council will not

honor the parchments unless the billikin-makers submit their oaths that they have used only the best materials and provided billikins only as needed and of exemplary workmanship."

And Abba was greatly affronted and sayeth, "Have we not always offered only the best of our efforts and gauged the quality of our comrades' work and expelled from our presence those who violated their sacred trust?" "Pfaugh," cried the Sharif, "Thou hath kept thy secrets to thyself, victimized the unsuspecting purchasers, and acquired many goats at the expense of the tribe. Thou has protected thy errant brethren and denied thy customers a voice in the production of billikins."

"Ei, ei," groaned Abba, "May thou beget only daughters. Have we not added more apprentices and shortened their servitude to appease thy insatiable demands? Hast thou not denied us more payment for our work though we are sore pressed to maintain our shops and all those scribes?"

And the Sharif sayeth, "Cease thy caterwauling, Old Man. Unless thou provest the need and quality of thy work, the billikin-makers may find themselves without compensation and out in the desert on their donkeys, if thou knowest what I mean. And furthermore, thou wouldst have more room in thy shop if thou didst not have that camel in here."

"I know," wept Abba, "I know."

(Here the script becomes blurred as though from moisture, and the remainder of the scroll has disintegrated.)

D.E.G.

Journal on Microfilm

Microfilmed copies of current as well as all back issues of the JOURNAL are available through University Microfilm Services, a subsidiary of Xerox Corporation. The 35 mm film fits all standard viewers and provides the JOURNAL in miniature at a savings on binding and storage costs. Write for information or send orders direct to University Microfilm Services, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

KMS ANNUAL MEETING PRESIDENT'S BANQUET MAY 7, 1974

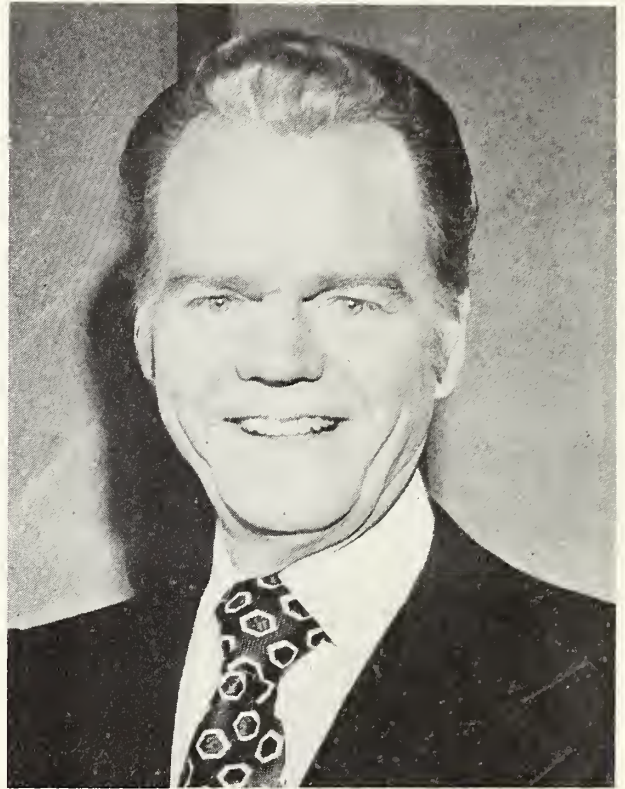
MR. PAUL HARVEY, Banquet Speaker

Mr. Harvey has been the recipient of nine honorary degrees, has been named Radio's Man of the Year by critics of his own industry, and was elected to the Hall of Fame in his home state of Oklahoma. Other honors include Commentator of the Year, Salesman of the Year, and the Gallup Poll list of America's Most Admired Men.

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This is the man who makes page three exciting, and page one understandable!



Dr. and Mrs. Thomas F. Taylor extend a personal invitation to members of the Society and their guests to attend the President's Banquet on Tuesday evening, May 7, 1974.

RAMADA INN, DOWNTOWN — TOPEKA

KANSAS STATE DEPARTMENT OF HEALTH

TOPEKA, KANSAS

Epidemiology & Disease Control Services—Registration & Health Statistics Services—Kansas Morbidity Incidence
Summary of Cases Reported in August, 1972 and 1973

<i>Diseases</i>	<i>August</i>			<i>January-August Inclusive</i>		
	1973	1972	<i>5-Year Median 1969-1973</i>	1973	1972	<i>5-Year Median 1969-1973</i>
Amebiasis	1	2	1	14	29	16
Aseptic meningitis	—	2	1	2	7	8
Brucellosis	—	—	—	—	1	1
Diphtheria	—	—	—	—	—	—
Encephalitis, prim., infect.	2	—	—	9	5	7
Encephalitis, post-infect.	1	—	—	2	7	2
Gonorrhea	885	676	676	5,422	5,429	4,761
Hepatitis, infectious	69	40	40	379	352	352
Measles (Rubeola)	—	—	—	17	27	27
Meningococcal meningitis	—	—	—	9	15	14
Mumps	13	—	—	775	655	655
Pertussis	—	2	2	6	6	6
Poliomyelitis	—	—	—	—	—	—
Rheumatic fever	—	—	—	1	1	1
Rubella (German Measles)	—	—	—	62	195	62
Salmonellosis	35	38	35	181	260	181
Scarlet fever	—	—	—	28	31	31
Shigellosis	18	22	18	161	376	161
Streptococcal infections	350	421	134	6,565	4,200	3,029
Syphilis	92	108	112	794	896	901
Tinea capitis	1	2	1	15	15	12
Tuberculosis	14	19	16	122	132	132
Tularemia	1	1	1	1	3	3
Typhoid fever	2	—	—	3	2	—

“HEALTH CARE—WHO?”

The second biennial health care conference jointly sponsored by the Ellis County Medical-Dental Association, Ft. Hays State College, and the Kansas Regional Medical Program will be held all day Saturday, April 20, 1974. The title of the conference to be held on the Ft. Hays State College campus will be “Health Care—Who?” Topics covered include: “Who Wants It?,” “Who Provides It?,” “Who Improves It?,” “Who Pays for It?,” “Who Modifies It?,” and “Who Will Defend the Care System?” Senator Robert Dole, the keynote speaker, will deliver the midday address. Other speakers of national reputation will be on the program. The program is acceptable for 7 prescribed hours by the American Academy of Family Physicians.

Woman's Auxiliary



Thank You

By the time you read this page, our Conference on the Young Family '74 will have become a thing of the past. But the chairmen and I cannot nod, with a brisk "thanks," and pass on to convention preparations and other pursuits, without first making a statement of commendation to the groups, organizations, and individuals that have assisted this first-of-a-kind cooperative venture of the Kansas Medical Society and its Auxiliary. This salutation includes many persons:

To the Executive Committee of KMS, our thanks for allowing us the opportunity to work together on a program of this magnitude, with such fine cooperation. The support of the members made it all possible from the onset.

To the state President, Dr. Tom Taylor, and his wife, Connie, who together with our chairman, Mrs. Dean Burnett, came up with the focus of the conference, "The Young Family," as an area of most need. There are all kinds of health education meetings and conferences, but particular emphasis needs to be made on preparation and continued education for "the vocation of parenthood."

Dr. Kenneth Graham helped us with goals, with potential sources of funds, and insight into some of the logistics of planning. Oliver Ebel was most encouraging as liaison to Dr. Robert Brown and the Kansas Regional Medical Program. Our special thanks to Dr. Brown and Mr. Ivan Anderson is making those funding dreams a reality. We are most grateful, as we would have had a rough time raising the necessary monies alone.

To the Staff of KMS, especially Jerry Slaughter, our appreciation for the arrangements for meetings, the dozens of phone calls and letters, and the hundreds of mailings that emitted from their office, but always with that pleasant and genial spirit that makes it easier to get the job done. Without these, we would have been doomed from the beginning.

Goals were established in three phases. The conference

was to assist in: pre-marital goal setting; preparation for parenthood; guidance for young parents. As Chairman Jackie Burnet saw it, "In a society of highly skilled vocations and professions, little preparation has been offered for the vocation of parenthood. Parenting and the nurturing of children should be a planned and satisfying experience. The physical, mental, and moral resources of our society depend upon the quality of life of our children. Evidence of a deterioration in that quality of life is seen in the statistics on divorce, unplanned pregnancy, child abuse, drug dependency, and emotional disturbances.

No one professional discipline alone can solve the complex problems facing the young family. It is with the aforementioned goals in mind that we join in a cooperative effort of prevention, which protects the human potential of today's children and those yet unborn. Several supporting organizations were represented on the steering committee or offered help in other ways. Those cooperating groups were: American Medical Association; Kansas Council of Churches; Kansas Council of Women; Kansas Association for Mental Health; Kansas Health Museum at Halstead; Kansas School Health Advisory Council; Kansas Regional Medical Program; Kansas State Department of Education; Kansas State Department of Health, Division of Health Education; KSDH, Division of Maternal and Child Health; Kansas State University, Extension Service; Menninger Foundation; Topeka Council of Churches; Topeka Recreation Commission; University of Kansas Medical Center; Washburn University of Topeka; Wichita State University.

Again, our thanks to all those participating in and assisting with our conference, and a hearty and most sincere vote of thanks and appreciation to the directors of the Kansas Regional Medical Program, for the vision to see that education for health should be a never-ending process.

Katie Keys

The Kansas Medical Society—1973-1974

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Although it is expected that a human-origin rabies immune globulin will become available in the future, we are at present committed to the necessity of administering equine-origin rabies antiserum in animal bite situations where exposure to rabies cannot be ruled out.

The optimal prophylaxis for bite exposure now involves (1) rabies antiserum, and (2) duck-embryo rabies vaccine. Both of these materials must be used, the antiserum to inactivate rabies virus immediately at the site of inoculation, and the vaccine to stimulate host antibody. A number of published studies of immunization and virus challenge indicate that antiserum is as important as the vaccine. The arbitrary decision to omit antiserum because it is difficult to use is not a defensible position medicolegally. Each animal bite situation must be individually and carefully evaluated, and immunoprophylactic treatment given if a reasonable risk of exposure to rabies exists. Assessing the risks can be difficult, even when clinical, epidemiologic, and laboratory resources have been thoroughly utilized. The Division of Epidemiology, Kansas State Department of Health, regularly provides consultation in the evaluation of these situations; please do not hesitate to call if they can be of assistance.



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Cancer Detection

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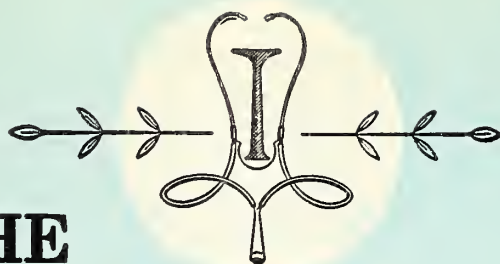
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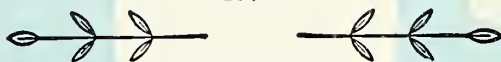
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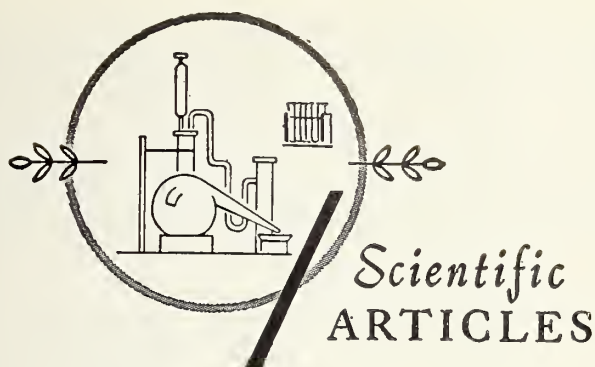
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Sudden Death Syndrome

Recurrent Apnea

J. L. UNGER, M.D.,* *Kansas City, Kansas*

CLINICAL PRESENTATION of the sudden infant death syndrome is usually one of an infant in previously good health, perhaps with a minor upper respiratory infection, found dead between midnight and 6 AM.¹ The precise events occurring before death are not known, and it is frequently difficult to determine the time of death. Although prolonged apnea is considered as one of the precipitating factors, it is not certain if the children dying of sudden infant death syndrome are susceptible to repeated episodes of apnea.

Case Report

The 7-month-old white girl was transferred to the Kansas University Medical Center on July 8, 1973. Earlier in the day, her mother had fed her, put her in the crib, and returned ten minutes later to find her apneic and cyanotic. She was given mouth-to-mouth resuscitation, rushed to a local hospital where further resuscitation was done, and was connected to a respirator. (At 6 months of age, the patient had suffered a similar episode, requiring resuscitation by the mother, and hospitalization for four days. No abnormalities were detected on physical examination at that time, and EEG, EKG, and the cerebrospinal fluid (CSF) examinations were normal.)

There was no history of trauma, travel abroad, or exposure to sick animals or people. The patient was born

three weeks premature, weighing 2.7 kg (6 lb), with a satisfactory weight gain thereafter. She had received one Sabin treatment and the DPT inoculation.

On arrival at KUMC, physical examination revealed a cyanotic, comatose baby on a respirator. The pupils were fixed, dilated, and there was bilateral papilledema. There was less excursion of the hemithorax on the

A report of a patient who suffered acute respiratory failure and was resuscitated twice.

left, but no rales in the lungs. Heart rhythm was normal. Neurological examination revealed complete flaccid paralysis, areflexia, and absent ciliospinal and doll's eyes reflexes.

Laboratory values at the time of admission were as follows: Urine: pH 7, glucose 4+, protein 2+, WBC 10-15/HPF, RBC 20-25/HPF; blood: hemoglobin 11.6, hematocrit 35.8, WBC 21,400, differential—polymorphonuclears 46, bands 13, lymphocytes 39, monocytes 2; prothrombin time: 19.8 sec. (control, 10.9); partial thromboplastin (PTT): 79.8 sec. (normal, 30-40); chemistry: blood glucose 116, sodium 146, potassium 5.6, chlorides 94, bicarbonate ion 14, blood urea nitrogen 33; gases (on respirator with 30% O₂): pO₂ 77, pCO₂ 20, pH 7.35; cerebrospinal fluid: WBC 2, RBC 1, glucose 248, chlorides 137, protein 82.

*From the Department of Pathology and Oncology, KUMC, Kansas City, Kansas 66103.

The patient continued unresponsive, and the next day a chest x-ray film was interpreted as 5 lobe pneumonia. She began having bloody diarrhea, the hemoglobin fell to 9.9, and the patient became oliguric. Two EEGs obtained 24 hours apart indicated no cortical activity, and when this fact was presented to the parents, they consented to the discontinuation of the life support systems.

Autopsy Findings

There was hemorrhage over the anterior pericardium at the site of an intracardiac injection, but the heart was normal otherwise. There was no suggestion of aspiration in the trachea or lungs. However, histologic examination of the lungs revealed focal bronchopneumonia. Peyer's patches in the ileum were markedly prominent grossly, and on microscopic examination revealed histiocytic proliferation and focal necrosis. Necrosis of the malpighian corpuscles was also noted in the spleen. Acute ulcers were present in the colon, with some necrosis of the underlying muscularis. Tubular necrosis with early regeneration was present in the kidneys. The brain was extremely friable and edematous, weighing 675 gm and showing severe encephalomalacia. Post-mortem cultures grew mixed flora. In particular, an *E. coli* strain isolated from the stool was non-enteropathic. Viral cultures of stool, lung, and brain were negative.

Discussion

The sudden infant death syndrome, which causes between 10,000 and 15,000 deaths a year, is a poorly understood disease which recently has gained worldwide recognition. This reported case is undoubtedly one of a sudden infant death with resuscitation, and it is remarkably similar to the case presented recently at the symposium on sudden infant death in Boston.² Reports of similar cases are becoming increasingly common, and successful resuscitations are also chronicled.³ The main importance of this case, however, lies in its clinical presentation, since it may contain a clue as to the cause of this puzzling disease.

Multiple apneic episodes are common in babies born prematurely, but are found occasionally in term babies as well.^{4, 5} In fact, prolonged apnea with periods of up to 20 seconds without respiratory motion is occasionally found in otherwise healthy, normal appearing infants.⁴ Ordinarily, these apneic spells probably do not cause problems, but one can readily imagine that certain infants may be predisposed to continue these periods of apnea beyond critical points.

For example, animal experimentation has repeatedly shown that prolonged apnea may produce profound

and potentially fatal bradycardia.⁶ Studies in humans have tended to verify this. In apneic infants, the P-R interval of the EKG tends to lengthen.⁵ If this bradycardia persists, cardiac arrhythmias usually supervene.⁷ Nodal escape beats are the most common arrhythmias associated with apnea, but such potentially dangerous ones as A-V block and ventricular extrasystole are occasionally noted. And finally, EEG patterns tend to become flattened during apnea.⁴

The initial cause of either refractoriness to cerebral anoxia or the apneic spells themselves is unknown. In premature infants, this disorder suggests central nervous system immaturity, but its occurrence in term infants is more puzzling, alternatively suggesting some other mechanism. The association between the sudden infant death syndrome and a mild viral upper respiratory infection has long been known,⁸ but attempts to link a viral cause to the disease have been unsuccessful. However, Steinschneider⁹ has pointed out the high degree of correlation between apnea and upper respiratory infections in his patients, and it is tempting to imagine a situation where infection could alter normal breathing patterns, producing periods of apnea, progressing to bradycardia, cardiac arrhythmia, and death.

Whatever the mechanism, the present case suggests that these infants are retrievable if resuscitated before a critical time period. Unfortunately, the second apneic episode was not discovered in time, resulting in irreversible brain damage. Careful surveillance during sleep until at least 8 to 10 months of age in children with history of repeated and prolonged apnea may prove to be life-saving.

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Pneumocephalus With Osteoma

Frontal Osteoma

CHARLES D. SOUCEK, M.D., *Kansas City, Kansas*

PNEUMOCEPHALUS is a rare complication of frontal sinus osteoma. Only approximately 30 cases are reported in the world literature. The first was reported by Cushing, in 1927.¹

On May 12, 1927, Harvey Cushing, in his Presidential address before the American Surgical Association, first reported an intra-cerebral pneumatocele produced by erosion of an orbito-ethmoidal osteoma into the cranial cavity. The world literature has since been reviewed by Kessel (1939),² Teed (1941),³ Raider (1951),⁴ Shaw (1956),⁵ and Pell (1963),⁶ who estimated the total number of cases to be 25. Since 1963, Blagoveshchenskaia (1970)⁷ reported one case, Bartlett (1971)⁸ reported two cases, and Lari and Moure (1973)⁹ reported one case.

Our patient was admitted to the hospital because of nausea, vomiting, weakness, dizziness, and headache. She had been admitted two months earlier with similar symptoms. Brain scans on two occasions were normal. Skull films demonstrated a frontal osteoma eroding into the calvarium producing pneumocephalus. The osteoma was removed through a right frontal craniotomy and the dura was repaired. The patient recovered satisfactorily with relief of symptoms.

Radiographs demonstrating the frontal osteoma and the connecting air passage to the pneumatocele are included.

Case Report

A 67-year-old female was admitted on August 29, 1972, for the second time. She complained of nausea, vomiting, weakness, dizziness, and persistent headache. Approximately two months earlier, she had been admitted for urinary incontinence, lethargy, and headache. The patient had hypertension which was controlled medically for 10 years. Both breasts had been removed at age 22 for benign disease. Brain scans on two occasions revealed no abnormality, however, radiographs of the skull (*Figures 1, 2*) revealed an osteoma of the right frontal sinus, which had eroded through

the inner table of the skull and dura. A large pneumatocele was present in the right cerebral hemisphere, and laminograms demonstrated a tract connecting the pneumatocele and the frontal sinus.

A coronal and right frontal craniotomy was performed on August 31, 1972. A bony spike was found protruding from the frontal sinus through the dura and there was a tract extending into the frontal lobe of the brain. The brain about the tract was yellowish in color. Mild pressure on the brain caused air and some blood to escape from the fistula. The dura was then irrigated with bacitracin solution and the hole in the dura was closed with a patch graft from the galea. The frontal osteoma was then removed as completely as possible without complete exenteration of the frontal sinus.

The post-operative course was uneventful with disappearance of the neurologic symptoms. On October 2, 1972, radiographic examination of the skull revealed no air in the right cerebral hemisphere and the bone flap in satisfactory position.

Discussion

Osteomas are relatively common tumors and are found in approximately 0.25 per cent of routine roentgenographic sinus examinations. They are benign bony tumors which are well circumscribed and ordinarily grow quite slowly. They may become very large without producing symptoms. The frontal sinuses are the most frequent site of origin, accounting for 80 per cent of the osteomas. The ethmoid sinuses are second in frequency with 16 per cent, and 4 per cent are found in the maxillary antrum.¹⁰

Osteomas may be classified as compact, cancellous, or mixed. The frontal osteomas are frequently mixed with cancellous cores and compact outer margins.

Usually, osteomas of the sinuses produce no symptoms; they rarely cause local pain or headache. Symptoms are the result of enlargement with erosion through the wall of the sinus; they may extend into the orbit, causing proptosis. Small osteomas which are not causing any symptoms can be followed clinically with periodic radiographs, especially if the patient is old. If there is a significant increase in size with encroachment on the wall of the sinus, surgical removal should then

For reprints write: C. D. Soucek, M.D., Nuclear Medicine Department, Bethany Medical Center, 51 North 12th St., Kansas City, Kansas 66102.



Figure 1A

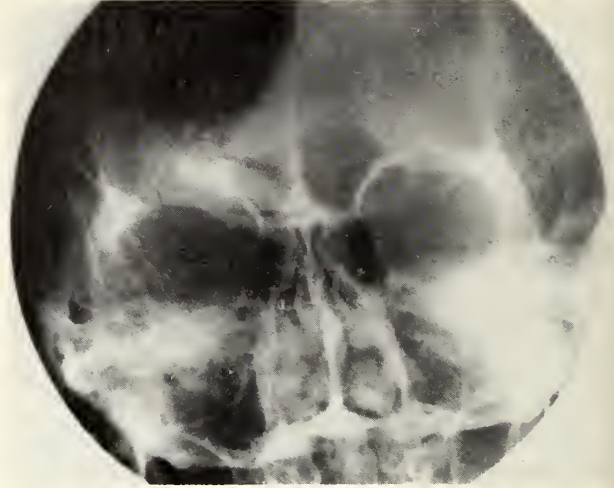


Figure 1B



Figure 2

Figures 1 and 2. Frontal and lateral skull film.

be considered. One of the osteomas reported by Bartlett⁸ revealed essentially no change in size over a 30-year period.

Summary

Pneumocephalus is a rare complication of frontal osteomata. Approximately 30 cases have been reported to date. Our patient had air within the cerebral substance. Radiographs demonstrated the connection to the osteoma, and surgical removal of the osteoma with dural repair was followed by satisfactory recovery.

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The Elusive Diagnosis

Painless Pancreatitis

JAMES D. H. REYNOLDS, M.D.,* *Leavenworth, and*
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PAINLESS PANCREATITIS has long been recognized but seldom emphasized. The incidence is unknown, but probably occurs with greater frequency than it is identified. The diagnosis may be difficult to document, however, clinical suspicion of the disease aroused by a triad of steatorrhea, diabetes, and pancreatic calcification can lead to appropriate therapy without expensive and sophisticated laboratory studies.

The diagnosis of chronic pancreatitis usually implies a long history of alcohol abuse punctuated by hospitalizations for bouts of severe abdominal pain associated with nausea and vomiting. If left untreated over the years, metabolic complications gradually come to dominate the clinical picture as the frequency and severity of abdominal pain begin to subside. Occasionally, the first contact with a physician is for advice regarding diarrhea and weight loss. If pain and gastrointestinal symptoms have not been prominent complaints in the past, a diagnosis of chronic pancreatitis would not be readily apparent. The following case illustrates some of the difficulties faced by both patient and clinician when the presenting complaint is of such non-specific nature as diarrhea.

Case Report

A 59-year-old male clerk had been treated symptomatically for mild but persistent diarrhea for five years. Persistence of the symptoms led to hospitalization on three occasions. Each time roentgenograms and biochemical studies were reported as normal. Each time he was told the diarrhea represented "colitis." A fourth hospitalization was precipitated by increasingly frequent nocturnal bowel movements, rectal urgency, occasional soiling, and recent weight loss of 11.3 kg (25 lb). The stools were bulky, foul smelling, and frequently associated with grossly apparent oily material.

As a young man, the patient drank alcohol on a daily basis for many years but had never been hospitalized for abdominal pain, vomiting, or jaundice. In more recent years, alcohol intake had been eliminated. Dia-

betes mellitus was discovered in 1966. Control with insulin had been uneventful until recent months, when hypoglycemic episodes became frequent.

He presented a thin, wasted appearance. The right tympanic membrane was distorted from chronic otitis media. There was minimal arteriolar sclerosis on fundoscopic examination, however, the peripheral vessels were all intact. Proctoscopy revealed a non-specific diffusely thickened mucosa. The remainder of his physical examination was normal.

Laboratory studies revealed normal values for a complete blood count, urinalysis, stools for ova and parasites, quantitative immunoglobulins, protein electrophoresis, electrolytes, serum and urine amylase, chest roentgenogram, barium enema, upper gastrointestinal series, gallbladder visualization, electrocardiogram, small bowel biopsy, and jejunal aspirate for culture and parasites. The results of tests for thyroid, hepatic, and renal function were also normal.

A small bowel series showed dilatation of loops and thickening of the valvulae conniventes. Calcification in the head of the pancreas was also demonstrated. Serum triglyceride was 67, cholesterol 160 mg/100 ml, and fasting blood glucose 130 mg/100 ml. A 72-hour collection for stool fat was obtained five days after starting a 100-gm fat diet. Thirteen grams of fat were excreted per day.

Pancreatin produced prompt but incomplete relief of diarrhea. After the dosage of pancreatin was increased, the patient became completely asymptomatic. After eight months of treatment, he has remained free of symptoms, his diabetes is once again easily controlled, and he has gained 40 pounds.

Discussion

Bartholomew and Comfort¹ reported ten patients with painless pancreatitis. All had ravenous appetite, weight loss, and steatorrhea. Pancreatic calcification was demonstrated in eight and diabetes in seven patients. One patient with no roentgenologically identifiable pancreatic calcium did have "small stone-like" areas palpable in the pancreas at laparotomy. Five patients had a triad of steatorrhea, pancreatic calcifica-

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tion, and diabetes mellitus. None of the patients ever had severe abdominal symptoms, although several recalled mild, episodic bouts of non-specific abdominal discomfort. In one patient, severity of diabetes fluctuated in an inverse relationship to fecal caloric loss similar to the patient in this report.

The cause of pancreatitis in these ten patients was obscure. Only one used alcohol excessively. However, in a more recent series of 50 patients with alcoholic pancreatitis,² 22 had no or only mild abdominal pain. The cause of painless pancreatitis does not appear to be any different from the more common painful variety. Why do a few patients have gradual destruction of the pancreas without pain? Pancreatic inflammation, obstruction, fibrosis, calcification, and eventual metabolic complications are no different in those with painless pancreatitis from those without chronic bouts of pain. Do patients with painful pancreatitis suffer gradual but continuous destruction of the pancreas during asymptomatic periods? Does early diagnosis and treatment prevent progression of the disease? These are all unanswered questions. However, early diagnosis can pre-

vent expensive hospitalizations and the considerable emotional and physical torment associated with an undiagnosed illness.

The onset of persistent bowel symptoms in an older patient without previous gastrointestinal complaints, the presence of nocturnal diarrhea, and occasional soiling should all suggest an organic disorder demanding diagnosis. In the presence of diabetes, the pancreas must be suspect. If pancreatic calcification is not identified on abdominal x-ray, laminograms of the pancreatic area should be obtained. Radio-isotope scan of the pancreas and a secretin test may also be helpful. Measurements of amylase and lipase are useful only if they are abnormal. Other biochemical tests are indicators of a disorder in absorption without discriminatory value as to cause. When such laboratory studies are not readily available, a clinical trial of pancreatin is justified.

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ABSTRACTS SOLICITED

Original papers for presentation at the American College of Emergency Physicians Scientific Assembly (November 4-6, 1974) in Washington, D. C. are now being sought by the Section on Education.

Ronald L. Krome, M.D., has set a June 30 deadline for submission of abstracts and final papers must be in the Committee's hands no later than August 30.

To be considered for presentation, papers must be the original and unpublished work of the author, and must be directly related to some aspect of emergency medicine. Papers will be considered for publication in *JACEP*.

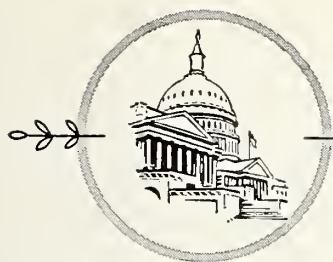
Abstracts must be no longer than 500, nor shorter than 250, words. They must indicate in some detail the contents of the paper. Five copies are to be submitted with the name and address of the presenter. The presentation cannot take any longer than 10 minutes.

Persons interested in this program should contact Ronald L. Krome, M.D., Chairman, Section on Education, American College of Emergency Physicians, 241 E. Saginaw, East Lansing, Michigan 48823.

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Socio- ECONOMICS

Restructuring of Health Services

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THE DECADE of the sixties saw the introduction of many pieces of proposed legislation affecting the delivery of health care. Each of these legislative endeavors represented the federal government's response to expressions of public criticism and concern. This period in our country's development could well be entitled, "The Age of the Consumer," because many pieces of health legislation called for participation by public representation in policy making.

Why is it that the public is giving us lawsuits and investigations rather than accolades of praise? Times are changing; America today is a scene of contrast. Our gross national product now exceeds one trillion dollars a year and the average family income has reached record highs. Yet, never have we been more conscious of the problems around us. Almost a third of our population is enrolled in school, but never before have we been so concerned about the state of education as we are today. Our nation's health standards have reached an all-time high measured by any index we can devise. Yet, never have we, as a people, been more anxious about the delivery of health services. The critics of our present day health care system look at this gap between achievement and expectation and say that the voluntary system is not meeting the needs of the public in a satisfactory manner.

To the man on the street, this credibility gap is widening from all he can hear and see about the health care delivery system. Its costs are escalating; it is highly fragmented; it is episodic in orientation; and most importantly, he does not feel he is being assimilated into it.

The health services industry holds a monopoly on a vital utility. Therefore, it is destined for one of two

fates: either it will be nationalized, or it will be closely regulated in the public interest. The health care delivery system is not accustomed to such public scrutiny and discussion as it is now experiencing. Its traditions are those of self-examination and self-criticism. These public incursions into hitherto private domain have wounded our pride. We feel unjustly criticized by the public we have worked so hard to serve.

Much of this has come about because we have failed to recognize the social impact of health services. Although the health system is not a monopoly in the usual sense, some of the conditions we see produce a similar effect. Health care does not respond to the usual

Increasingly insistent demands are being made upon the health care delivery system to "get its house in order," "increase its effectiveness by introducing the organizational principle of regionalization," "move away from a cottage industry approach," ad infinitum. These demands evidence themselves in legislative proposals. The following article discusses the parameters, their advantages and disadvantages, that the critics say should be included in "restructuring the system."

demand mechanisms. The consumer has little power to regulate the supply and quality of health services by asserting economic demands. The most critical source of supply, health manpower, is held inelastic by an educational system which lacks the ability to make timely responses to changing manpower needs. Ability to pay offers consumers little or no assurance of obtaining adequate health care, or even freedom to choose among the providers, because of the scarcity of providers.

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While the health market may not be a monopoly, the de facto effect of these conditions on the consumer, and the resulting frustration and disaffection with "the powers that be" appear to be inviting steps resembling those used to break monopolies; that is, government controls backed by strong public sentiment.

This period of stress, criticism, and reaction has produced a climate for change in the method of health care delivery in the United States. The problem now is to determine what changes to make.

The critics of the present method of health care delivery describe the current way of doing things as a "non-system." Their bill of particulars emphasizes that present methods do not bring into a structured relationship a set of users, patients, a set of providers (both professional and institutional), a comprehensive scope of services, and a fixed set of dollars for payment. Most of the current legislative proposals for changing the delivery system address themselves to the alignment of two or more of these parameters into an organized unit. From the viewpoint of the economist, the legislator, the administrator and the systems engineer, the logic of using these parameters is a valid one. Albeit logical, many difficulties arise in trying to systematize the non-system. Following is a discussion of the values to be gained or lost from the introduction of each of the parameters.

A set of named individuals described as being the responsibility of the providers and who are the recipients of the fixed scope of health services.

This parameter develops a fixed relationship between the individual and the provider, thereby guaranteeing entry into the system. The individual would know who is responsible for providing the health services that he requires. On the other side of the coin, the provider would know the sum total of his responsibilities in health care delivery. The names and numbers of patients for whom he would be responsible would be known; and he, therefore, could plan appropriately for manpower and facilities.

This would also respond to what is probably the greatest worry insofar as the individual is concerned. Many Americans feel that they have no fixed connection with the delivery system; they feel medically deprived. For those whose worries are real, this means that they seek assistance only on an episodic basis.

If the individuals named are not all-inclusive of the population of a given community, the possibility exists that the provider would limit his sense of responsibility to the persons named rather than to a community of individuals and could thus fragment the system into bits and pieces. It is important that geographical responsi-

bility be considered, as well as responsibility for specific individuals.

A comprehensive scope of covered services.

These are generally described as care for acute and chronic illness or disability, maintenance of optimal health, and continuing evaluation. Provision of comprehensive services affords the physician an opportunity to exercise options in his selection of means of treatment. It would remove the bias toward inpatient care that exists in the current system. It provides a logical array of services for the patient. He doesn't have to run through a medical maze to get appropriate treatment. Properly implemented, it could insure that medical supervision is continued by the same physician. It would also foster development of a new attitude on the part of the physician and patient toward health care. Both could be expected to be oriented much more toward maintaining health and using the physician's services on a continuing basis rather than as a final resort in episodic care.

The mere requirement of a comprehensive range of covered services would compel providers to develop arrangements among themselves that do not now exist. This would make for an orderly relationship between the various elements of the system.

All of the above characteristics could be cited as advantages to be derived from the requirement for comprehensive services. However, there are some accompanying disadvantages. We know that when accessibility and availability of care are improved, utilization rates increase also. One of the public's major criticisms is the difficulty of access for a substantial portion of the population. Comprehensive services combined with prepayment and easier access have one inevitable result; total costs would increase significantly. We have no evidence to believe that prevention and early detection can significantly reduce high risk and high cost illness in the general population.

Affording the physician an opportunity to exercise options as to the type of care being used can reduce the cost and use of expensive facilities. But experience has shown that better casefinding will more than offset those savings.

A specific set of providers.

Imposition of this parameter would be of substantial value in resolving some current problems. This arrangement has a built-in method for insuring the quality of services provided by physicians. Certain selection processes would be employed in determining which physicians would be included in the providing group. Also, the fishbowl visibility of group practice supports the

development and implementation of quality control measures. In-hospital quality measurements, stimulated by the continuing growth of government health care programs, have demonstrated a reasonable degree of success. This would provide the same level of quality control of medical practice outside the hospital. Thus, an advantage in relating the physician to a group is that it would provide an arrangement for evaluating the quality of the physician's total practice.

Grouping of physicians affords a better opportunity to make maximum use of other health care professionals. A group of physicians can obviously have more success in generating sufficient patient volume to justify the use of other professionals. This affords an opportunity for substitution of skills and better division of labor.

There are some problems with this arrangement. The physician who chooses not to enter such a relationship would have a difficult time in this system. Those who aren't acceptable for membership in the group would probably carry a second class status in the delivery system. This development would counter the present move to permit every physician the highest privilege consistent with his capabilities. Arbitrary restrictions on the physician's practice would likely cause him to establish his practice in another community, and this could lead to new problems.

A single capitation payment covering the services of all providers.

This parameter is both the most significant and the most controversial of the four. Its major supporters are those who are concerned with developing cost containment measures. The imposition of capitation payments will exert tremendous economic pressures on the system. This method of payment will restore marketplace considerations that are absent with the present methods of third party financing. In a very unique fashion, it transfers the financial consequences of demand to the provider. Capitation causes the provider to make decisions regarding the kind and quantity of health service to be given.

There is no doubt that this unusual economic device could provide effective cost control. The provider can always modify the supply of services available to fit payments.

Another desirable feature of a capitation payment arrangement is its predictability of cost. For those agencies contracting to underwrite costs, this would be of real value in projecting and living within realistic budgets. It should also provide a base for better economic planning by providers. This arrangement would require hospitals to adopt a prospective method of rate

setting and would thereby impose some new limitations on the escalating costs currently being experienced by hospitals.

Even though capitation payment offers some highly desirable advantages, it also possesses the potential to create some very important and difficult problems.

The most obvious of these potential difficulties is the likelihood of placing the provider in a position of conflict of interest. If he stands to gain or lose on the basis of restricted provision of services, the decision to treat or not to treat is subject to influence because of the provider's economic self-interest. In other words, some consideration other than the health interests of the patient is operating at the time the decision is made. Carried to the extreme, and assuming that capitation payment serves the economic purpose for which it is designed, the dominant motive of providers would be to provide as little service as possible in order to make as much money as possible.

The reply to this suggested possible outcome might be that we can trust providers to withstand these temptations. But if that is so, there is a very logical reason to question the whole concept of economic incentives. They would seem to be of value only to the extent that the provider is willing to modify his present method of practice to accommodate his own selfish interest. If the provider cannot be trusted under present arrangements to act in the most desirable fashion, how can he be trusted under arrangements that are much more directly related to his own financial interest? Think of the criticism to which providers would be exposed from an already hypercritical population. He would be accused of decreasing both utilization and quality in order to maximize his own profits.

One of the arguments of the advocates of capitation payment is that it will motivate the physician to keep the individual well in order to reduce expenses in treating illness. The argument goes that doctors now profit from illness rather than from wellness. This represents economic nonsense insofar as the doctor is concerned. The things a physician can do have very little to do with keeping an individual well, and it is probably cheaper to society for the doctor to take care of the patient's illness than for him to devote his time to keeping patients well. Given today's mobile society, it would be difficult for a physician to justify his personal investment in the health of an individual today who might well be in some other community tomorrow. This is not an argument against the desirability of maintaining health, but it is a statement of opinion that the idea of a provider making a significant investment in order to maintain a particular individual's health is not very practical.

The significant effect of capitation payment is to place providers on economic risk. Some providers cannot tolerate a condition of risk. It is quite likely that many of the population groups for which health services will be contracted are too small to be actuarially sound in risk assumption. Capricious use of financial risk can only direct the provider toward economizing on services and away from a community service responsibility. Under any system of risk taking, it is the patient that ultimately carries the risk—in terms of quantity and quality of service. Just imagine the effect of the capitation approach on teaching hospitals. A providing unit could not be economically competitive and use a teaching hospital as its base. The average unit costs are too high.

These statements were not intended to discourage the restructuring of health services. The fact that change is difficult and sometimes unpredictable is no argument against the need for desirability for change. We have abundant evidence that the health services delivery system has not kept pace with changes in our social, political, and technological environments. Organizational change has not kept pace with technological change nor with the expressed demands of the public.

Observation of the many systems in use in the world today leads to the conclusion that there are no perfect solutions. There are too many conflicting values involved and too many divergent interests at stake. The health field will be a scene of successive battles and much of our present predicament is hard evidence of that fact. There are many important conflicting and competing values that must be reckoned with. We can't have them all. We must give up some in order to keep others. The challenge to the leaders of the health service delivery system is to strike the best balance of values in designing change.

Aristotle is reputed to have said, "The guest will judge better of the feast than the cook." That should be uppermost in our minds as we go about the business of proposing a restructured health service. The new system must provide solutions to what the public perceives as problems: cost, continuity, comprehensiveness, and accessibility. Until those problems are adequately addressed, the health care system will continue to be assaulted with greater demands to pay attention to the social and economic problems of medicine.

An analogy can be drawn between the telephone industry and the health service industry. The United States is the only major country in which the telephone system is not operated by the government as a national utility. The United States is also unique in that, in all other major developed countries, health services are de-

livered under a national health care system. An important lesson can be learned by understanding how the telephone industry managed to retain its autonomy. Industry leaders foresaw that as an industry holding a monopoly on a vital utility, they had to face up to the inevitability of one of two alternative actions—nationalization or close public regulation. Recognition of this conclusion led to one strategic decision. They not only invited outside regulation, but took positive steps to encourage the establishment of regulatory bodies. It should be carefully noted that the regulatory mechanisms which were proposed not only satisfied the public interest, they also allowed conditions under which the industry could live and prosper. It cannot be stressed too strongly that the ultimate ability of the private, voluntary health delivery system to live under newly designed legislative measures will be determined by the quality of participation and the quality of representation of provider groups.

This brings us to another principle for preserving autonomy. We must create values so unique and indispensable that the public and the government will hesitate to tamper with the system for fear of losing an irreplaceable resource. This principle leads to the adoption of a doctrine that the Bell System's foremost objective is service, a basic and total commitment to the policy that it is the responsibility of every employee to anticipate and satisfy the needs and wants of the public. That is the kind of attitude that the voluntary health delivery system must display even though it may mean a painful reorganization in the means of delivery. To paraphrase, "We may be the only hospital in town, but we try not to act like it."

The present administration calls this the age of creative federalism. One of the progeny of this philosophy has been an irregular, intermittent partnership between the government and health providers. Like some marriages, this partnership is not a creation of love and mutual respect but of necessity. Neither of the partners has the resources to provide the level of health care guaranteed under the concept of health as an individual right. The voluntary sector has significant and precious strengths. It has a huge capital investment in facilities, manpower, and technological know-how. It has multiple sources of financing and local citizen participation in decision-making. The government can contribute the capability to assess trends and to identify problems of regional and national importance. It has a vast organizational structure, statutory authority, and access to the broadest of all funding bases. If the partnership is to be a creative one, these contributions must be respected and nurtured by both partners.

The product of this partnership must be a rational

system that delivers appropriate services in a timely, effective, and efficient manner. What must be achieved in order to permit a rational system to emerge? Following are some essential prerequisites which will require attention.

1. Delivery of services must be perceived as one subsystem within a larger system, which also contains subsystems concerned with health planning, health education, environmental control, and research. Without appropriate interaction among all of these, the effect of health services delivery may well be minimized.

2. Health care providers must move away from a professional and technological orientation to one that is patient centered. The system must treat the entire patient and all of his health problems, not just those that are of primary interest to the provider.

3. The concept of licensing as a quality control measure must be re-examined. Licensing provides freedom to act. That freedom may be for the lifetime of the practitioner. At best, licensing represents an estimate of the person's ability at one point in time.

4. The present system is geared to a pattern of seeking cures for specific pathologies. We need to reorient health care programs to the point where preventive and restorative medicine is deemed to be of equal value to the episodic treatment of acute illness.

5. The nature of the relationships between government, voluntary institutions, and private practitioners must change. We need to foster the development of consortium arrangements so that we see each other as colleagues, not as competitors.

6. The concept of territorial accountability must be developed. Partners in the system must be linked together effectively to provide comprehensive health services to the total community population.

7. Health care must be financed through compulsory, but equitable, mechanisms. The arrangement should provide incentive to both the patient and the provider for a lower than average use of the system. The payment mechanism should permit flexibility in determining delivery modes.

A rational health care delivery system can be developed only after certain conditions are met. The question is broader than concern for financing alone or for developing new combinations of providers and assigning them catchy titles. Over-all goals and sound public policy cannot be established until the system has been studied in its entirety.

References

A list of references may be obtained from the author.



HOW YOU CAN HANDLE PRESSURE

The leaflet, "How You Can Handle Pressure," describes in practical terms some signs of pressure the average person may feel as he copes with the piled-up problems of modern living; it contains helpful hints on how to deal effectively with this tension and use it constructively.

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National Health Insurance

THOMAS F. TAYLOR, M.D., *Salina*

Editor's Note: Dr. Taylor, as President of the Kansas Medical Society, offered the following comments on national health insurance in his appearance before the Public Health and Environment Subcommittee.

IN the context of my remarks, I would like to have the understanding that I am discussing national health insurance, and not *compulsory* NHI. I believe, we still have a free society, and I would like to see it remain this way.

The concept of national health insurance began in the early 1930s. Since that time, various programs have isolated many of the parts of the total package and increasing emphasis has been placed on the subject of health, particularly including the areas of:

Manpower	Health care delivery
Distribution	systems
Facilities	Computerization
Financing	Confidentiality
Services	Cost containment
Quality	Efficiency of delivery
Availability	of health care
	Accessibility

With the increasing federalization of medical care, major emphasis during the recent years has been on cost containment, efficiency, and on quality of care, with little differentiation between them.

The concept of NHI, by itself, cannot really be argued. It is in the area of add-ons that we began to generate friction. In reviewing other countries which have gone this route, we find that countries like Germany, Sweden, England, Spain, France and others, individually, are about equivalent in size and population density with our individual states, with fairly homogenous population. Canada divides its NHI, so that each province handles the program at the provincial level.

Statistics like infant mortality are frequently used, and used absolutely out of context as they have been developed by the World Health Organization. These people clearly state that no comparisons should be drawn because the bases for the information are not standard. Yet, those who want to control a national health insurance program use them regularly. Sweden's statistics are not as good as those of the state of Minnesota, where, for comparison, we have approximately the same homogenous mixture and population density.

Nation-wide, there has been a decrease in infant mortality rates from 23.7 per cent to 17.3 per cent during the past decade.

In the countries which have NHI, we find certain interesting factors, some of which I would like to point out.

1. In the area of *distribution*, we find that there is still a marked maldistribution of physicians, with the patients in the more remote rural areas obtaining care for their health needs from less educated people or from paramedicals, or they must travel outside that area. In Kansas, the factor of time is extremely important. Patients in the larger metropolitan areas may well spend more time getting to the physician or a hospital than a person in the rural area, even though there may be many more miles involved. It takes only 30 minutes to go 30 miles on good highways.

2. In the area of *facilities*, we find that certain countries have gone many years and, in fact, decades without building or modernizing hospital facilities. In Kansas, we have 170 acute care hospitals, most of which deliver high quality care, which is both appropriate and timely.

3. In the area of *availability*, a common problem is one of long waits for elective therapy, appointments with physicians at some time in the future, and the inability to obtain the same physician on a repeated basis. To a much smaller degree, we have these same problems.

4. In the area of *manpower*, there is a scarcity of physicians in all countries, whether this be due to the increased demands as determined by the expressed needs of the people through the programs promoted by our government, or whether this be due to the lack of adequate training facilities. In any event, we see a brain drain, particularly of the highly educated professional people, to countries which can offer them more job satisfaction and more incentives to do the job for which they are trained. At this time, physicians are leaving England at the rate of 500 per year, with most of them coming to the United States. They are being replaced at home by the foreign physicians, primarily from India. In Kansas, we see a large number of foreign graduates working with our people. These physicians represent professionals who will not return to their own countries, where there is a marked lack of

health manpower. Our population is growing at the rate of 0.8 per cent as of January 1, 1974. Medical schools are producing physicians at the rate 3 times as great as the population growth rate today.

5. In terms of *cost containment and financing*, we find that those countries which have NHI, incur larger than predicted costs in their programs, that they still spend about 7.5 per cent to 8 per cent of their gross national product in the field of health and that, in terms of dollars, we talk about a great deal of money. Last year in the USA, according to figures released two to three days ago, 3.3 per cent of the increase in inflation was attributed to the health sector. Physicians' fees increased only 2.9 per cent. This is well within the guidelines. As the physicians voluntarily (for the most part) participate in this cost containment program, they will find that further restrictions will be placed upon them if the track record of our bureaucracy is any indication. In the US, figures repeatedly show that 16 per cent—I repeat, 16 per cent—of the health care dollar is attributable to the physicians.

In any event, we feel that NHI will come and that the track record of the US government through its bureaucracy shows us that there will be encroachment on the practice of medicine through *financing* and cost containment. I will predict that most of us will live to see a time in which the quality of care for our people will be standardized and, in doing so, there will be an upgrading of the less than adequate care, and there will be a downgrading of the more than adequate care—all to meet standardization.

What do we see as the incentives for physicians to deliver excellent, appropriate, and reasonable cost care for our people, and which is the most important—excellence, appropriateness, or cost?

Most physicians in Kansas work at least 60-hour weeks in the direct care of patients, either in the hospital setting, where about 15 per cent of medical care is given, or in the office, where about 85 per cent of the medical care is obtained. Two-thirds of our cost of health care is given or obtained for about 15 per cent of the people. For the remainder of the time which the Kansas physician has available during the week, he stays on call and is available for care for his patient. Is it any wonder that there is an increased rate of: (1) suicide; (2) drug addiction including alcohol; (3) divorce; and that there also is a shorter life expectancy for the professionals. These people also earn—and I would like to emphasize *earn*—incomes in excess of

most other people. They do it over a shorter period of time, so that the net effect is that of about the same total lifetime earnings of other well-educated individuals. The physicians are also taxed at different rates. They also pay through taxation more than the *total* cost of their medical education.

Physicians are trained as individuals and to be individualistic and, by being this way, they are capable of meeting and adequately treating the patients, who also are individuals—whether we want to look at it this way or not.

As we see further encroachment by regulation on the physician through the various governmental programs, and understanding that physicians have been trained to handle patients on an individual basis and to spend many hours doing it, one can easily understand how these professional people are reluctant to accept add-ons to legislation which will control them and remove them from taking care of their patients.

During the recent past few weeks, I have had the interesting, I think, experience of talking with four physicians in Kansas, who have indicated to me that they are not interested in remaining in direct patient medical care in the advent of the add-ons in a NHI program. They are tired of working as hard as they do, they are tired of spending the number of hours which they feel obligated to for good quality care of their patients, they are tired of repeatedly being told that they are money-hungry, giving poor quality care to their patients, and they are tired of being told that they do not deliver care to all segments of society. The concept of future shock is here now.

Do our people really want the add-ons to any federalization of health care NHI? I would suspect that they don't even know what the fine print of this program is all about, and I doubt if these add-ons will be promoted, publicized, or discussed by the promoters of this legislation.

Personally, I find that when costs are compared to productivity, there is a bargain. Not so many years ago, a person who contracted bronchopneumonia was ill for two to four months, and many of these people died or became permanently crippled. They were out of work for a long period of time. Today, the patient will spend \$40-\$50 for evaluation, laboratory testing, and drug therapy for the same disease process *and* may or may not miss any days from work; he maintains his productivity.

I think that this is a real bargain.

The President's Message

Wage and Price Controls

An urgent request to make a policy decision for the Medical Society on wage and price controls forced your President to take a stand. The following statement will be submitted to the House of Delegates in May.

WHEREAS, The physician component of the health care industry is the only industry to meet the wage-price guidelines during the freeze, and this is the only positive example of price controls designed by the federal government; and

WHEREAS, The federal wage and price control regulations are discriminatory to physicians; and

WHEREAS, 1) Doctors' expenses are increasing dramatically; 2) Malpractice insurance premiums have doubled in the past few years; 3) Salaries for employees must increase to compete with non-regulated business; 4) Federal regulations under Medicare and Medicaid increase required paper work to where additional employees are needed; 5) Economic practicality of buying new equipment or providing new services has been severely hampered by the wage-price control regulations; and

WHEREAS, Increasing productivity may well decrease quality; and

WHEREAS, Doctors in increasing numbers are closing their offices and accepting salaried positions; and

WHEREAS, Doctors may establish new fee schedules only if they relocate their practice at least 50 miles away from their present location; and

WHEREAS, All the above is to the disadvantage of the patient; therefore be it

Resolved, The Kansas Medical Society requests that the wage-price controls for physicians not be extended; and be it further

Resolved, That the wage-price controls against phy-



sicians are discriminatory and could be removed altogether with safety from run-away inflation because of the effective utilization and peer review committees currently in existence; and be it further

Resolved, That copies of this resolution be sent to the President of the United States, to the American Medical Association, and to all Kansas Congressmen.

Thomas F. Taylor

President



Editorial COMMENT

Robert LeGoff
Research Manager
McGraw-Hill Research
New York, New York 10020

Dear Mr. LeGoff:

This is by way of acknowledgment of your letter of fairly recent date, as well as the followup duplicate which resulted when your computer told you we hadn't responded to the first one.

Our delay in response was due not only to our characteristic capacity for procrastination, but also to a certain ambivalence we feel in response to such communications. As with most questionnaires we receive—and it seems as if we receive many—we can't come to a comfortable, simple answer to some of your questions, but feel the urge to introduce comments to modify our answers. These, we realize, won't fit in your computer and they, therefore, cannot be incorporated into your study, so we put the letter aside while trying to decide whether to try to conform to the limitations of your little squares and choices, or ignore your letter completely. Your appeal to our vanity—that our "name was included in a scientifically selected sample"—prompts the feeling that our failure to respond will produce some crisis in the world of opinion-sampling and adds to our discomfort, but still fails to overcome our indolence. Until now.

You were inquiring, you will recall, about a certain free journal we have been receiving. Specifically, you wondered if we had received it. We had. Then you wondered if we had read it—and already we are perplexed. We scanned it and read some parts of some articles. But is that "reading" it in your context? You were kind enough to give us an out by noting that you'd like the questionnaire back even if we hadn't read the journal, but that doesn't help too much because we still haven't decided whether we qualify as having read it.

So we go to the other side of the page—which is what you really want filled out—to see if we can re-

solve the dilemma. There we find a list of 42 drugs and medical items advertised in the journal and you wonder if we "remember seeing" the advertisements and, furthermore, if we "remember reading" them. Now, at least, the purpose of your communication appears: you are accumulating data so you can say to various pharmaceutical advertising directors, "Look, man, these dudes really dig our rag the most" (which, we understand from some publications, is the way people talk in the effete East).

Well, this only compounds our discomfiture. For one thing, these same ads appear in numerous journals that come to our attention. We are forced to admit our inability to recall (even if we recall seeing the ad) where we saw it—your journal, ours, or someone else's. To be honest (which we've tried to do ever since taking the Boy Scout oath on our 12th birthday), we can't be sure—a sad note but it necessarily eliminates us from your computer's consideration or forces us into some degree of falsification, which would make suspect the scientific beauty of your study. Problems, problems.

But we come now to the real hangup we face in completing your questionnaire. Like you, we have an interest in the promotion of a medical journal. Like yours, ours depends in large part upon the largesse of the pharmaceutical advertisers for its survival. Unlike yours, ours commands a subscription list of limited quantity (though impeccable quality). And we know that your computerized pitch to the advertisers will carry significantly more weight in convincing them they should spend their advertising dollars with you rather than with us. Shall we, then, complete the questionnaire with sincere but self-threatening honesty, complete it with frank dishonesty to make you look bad, or ignore it—which may be the closest to honest we can get?

It is quite probable that you didn't see some of our previous comments in these pages in which we have lauded the large-circulation, free journals for their purpose and content, and hoped that the lion and the lamb

(guess which is which) could lie down together at the pharmaceutical advertiser's trough. Even so, self-interest dictates at some point that we at least not aid the process which is making progressive inroads into the financial welfare of journals such as ours. The most potent element in our sales effort is our relationship to the individual physicians of our respective states, but this does not translate readily into a computerized figure which means something to the advertising managers and agencies who decide how much to spend where.

We are not above doing a little opinion-seeking ourselves. Last year, we wrote to some 30 pharmaceutical advertising directors, 15 of whom advertised with us and 15 of whom did not. We asked them (rather bluntly, we're afraid) how they selected the journals for their advertising and what they would do, in our place, to acquire their advertising. The first thing we learned was that the majority of them (even as some editors) don't answer their mail. A few, however, responded at length with informative comments which obviously required time and effort to compose and for which we are grateful. Some even expressed an interest in state journals because of their particular relationship to the physician-reader.

But one thing that emerged was a little disquieting: the real power in deciding how an advertising program is set up—format, placement, distribution, and so on—is largely in the hands of professional advertising agencies. Now this is good business practice in terms of dollar return but, by introducing a non-medical agent between the pharmaceutical advertiser and physician-reader, it diminishes the communication between these two mutually dependent individuals. Professional? Yes. Productive in terms of return on the advertising dollar? Must be—if the computer studies are to be believed. But promoting the physician-pharmaceutical company relationship? We wonder.

You ask, for example, if we read the ads in your journal. No—and we doubt if many did, regardless of what they marked on the questionnaire. They aren't meant to be read. They contain, at the behest of the FDA, the product information which is available to the physician in the package insert, PDR, or from his friendly neighborhood pharmacist or detail man. But beyond that, they are strictly Madison Avenue. True, they promote drugs and medical items rather than breakfast food, deodorants or tires, but the approach is the same. Color. Bold face type. Heavier paper so the reader's thumb will stop on that page. Even a touch of flesh now and then. Socko.

Don't misunderstand. We're happy to have them for the same reason you are. We realize we are chomping

close to the feeding hand. There's more than a tinge of heresy in our hyperbole, and the gang at the State Medical Journal Advertising Bureau is saying at this point, "Oh boy, the country cousin has done it again!" Well, blanket criticism is, of course, no more justified than blanket praise, but we have the conviction that most medical advertising pleases the agencies more than it pleases (or informs) the physician-reader. We suggest, as a project for your consideration, going a step beyond this one: ask the physician if he *liked* the advertisement, if he was favorably impressed, and learned something from it. Or did it just assault him with a name in the hope he would remember it when he wrote his next prescription.

We know there is no productive answer for us except to try to convince the advertisers there really is some value to them in supporting the journals with which the physician has some special identification. This in turn requires that we get our physicians at least to open our journal and see the ads. Perhaps we should invest in some computer time and canvass our membership and come up with some figures that might be convincing to potential advertisers. We would need, of course, a computer programmed for certain features of readership other than quantity. Our modest circulation of 2,500 or so won't count for much unless we can convince the advertisers—or, more properly, their agencies—that all our subscribers are sitting by the window, watching for the postman, eager to devour the contents of each issue on arrival—or at least the advertisements therein.

What it comes down to, then, is that we are skeptical of the real information to be obtained from your questionnaire. (Incidentally, we received one the other day asking for ratings on publishers including McGraw-Hill. We gave you a good rating not so much because we know you to be superior but because we hadn't heard of most of the others anyway.) Those individuals who don't answer your questions may still have opinions. And those who do answer may be providing you with the same specious information we would have, had we completed it in the expected manner. But we have no doubt you'll come up with some figures that will serve you well in the promotion of your journal to the advertisers.

Well, at long last you have received an answer to your questionnaire even though it defies computerization. These comments will probably not come to your attention but if they do, you may feel free to share them with your many fellow opinion-seekers since they by no means apply to you alone. And perhaps you will

(Continued on page 160)

115th Annual Session

Kansas Medical Society

May 5-8, 1974

Ramada Inn, Topeka

Make Your Plans Now!

Welcome to Topeka

On behalf of the Shawnee County Medical Society, we wish to invite you to attend our state medical meeting here in Topeka during the first week of May. The meeting will be held in the Downtown Ramada Inn. We feel that we have a very fine scientific program planned for the meeting here and trust business matters which come before the House of Delegates may be resolved in a constructive way.

If there is any way that our own local society office can make this a more satisfactory meeting, or if any problems arise while you are here in Topeka, any of our local society members will be glad to assist you in any way they can.

Robert D. Parman, M.D., President
Shawnee County Medical Society

Distinguished Guest Speakers

Graduate, McGill University, Montreal, Quebec, Canada, 1963. Interned at the Cook County Hospital, Chicago. Has been an instructor in surgery at the Abraham Lincoln School of Medicine of the University of Illinois College of Medicine, Chicago, since 1969. Was the bureau chief of the Division of Emergency Medical Services and Highway Safety, State of Illinois. Is currently Editor of the *Trauma Center Newsletter*, Department of Public Health, Illinois. Has written a number of articles on care of the trauma patient.



DAVID R. BOYD, M.D.C.M.
Springfield, Illinois

Graduate, Stanford University Medical School, 1961. Interned in surgery at Johns Hopkins Hospital. Has been an instructor in surgery at Stanford University since 1969, and is presently Clinical Assistant Professor of Neurosurgery at Stanford. Was cited by the San Francisco Neurological Society for his clinical research. Has published numerous papers on injuries of the cervical spine.



DONALD J. PROLO, M.D.
San Jose, California

Graduate of Boston University School of Medicine, 1964. Interned at the King County Hospital, Seattle. Is Professor of Surgery at the University of Wisconsin; Director of the Trauma Program; Co-director for Trauma and Life Support. Has authored numerous papers on trauma and care of the thermally injured patient.



JOSEPH A. MOYLAN, M.D.
Madison, Wisconsin

A pathologist of international renown, Dr. Sevitt is currently the Consultant Pathologist at the Birmingham Accident Hospital and Rehabilitation Center, Birmingham, England. He authored the book, *Fat Embolism*, and numerous articles on care of the trauma patient. Dr. Sevitt will make a two-week lecture tour while in the United States this May.



**SIMON SEVITT, M.D.,
F.R.C.P.I.**
Birmingham, England

Graduate, the Chicago Kent College of Law, 1936. Attended the Cook County Hospital Department of Pathology, 1929-1939. Is a past president of the American Academy of Forensic Sciences. Is presently a Fellow in the British Academy of Forensic Science. The author of numerous articles on medicine, science and the law, he is currently the Vice President of the American Trial Lawyers Association.

JACK L. SACHS, LL.D.
Tucson, Arizona
(no photograph available)



WILLIAM G. ECKERT, M.D.

Wichita

Graduate, the New York University Bellevue Medical School, 1952. Interned at USPHS Hospital, Staten Island, New York. Dr. Eckert is distinguished in the field of forensic medicine and has received international acclaim for his endeavors. He is currently Associate Director of Laboratories, St. Francis Hospital, Wichita. He has authored several publications on traumatic pathology.



WILLIAM O. RUSSELL, M.D.

Houston, Texas

Graduate, Stanford University Medical School, 1938. Interned at the Cleveland City Hospital, Cleveland. Did advanced pathology training in neuropathology, Washington University Medical School, St. Louis. Is currently Chief Pathologist, Department of Anatomic Pathology, and Professor of Pathology, University of Texas M. D. Anderson Hospital and Tumor Institute, Houston. Serves on faculty of Division of Continuing Education, University of Texas Graduate School of Biomedical Sciences.

CAPT. JAMES W. OUZTS

Fort Riley

(no photograph available)

Graduate of Northwestern Louisiana State University, 1968 (sociology). Served with the U. S. Army in the Republic of Vietnam, as a medical evacuation helicopter pilot. Is serving as a training officer, MAST project officer, and assistant flight operations officer with the 82nd Medical Detachment, Ft. Riley.

Hosts for the Meeting

Topeka Physicians Arranging 1974 Session

GENERAL CHAIRMAN—Donald R. Pierce, M.D.

PROGRAM COMMITTEE

Antonio Huaman, M.D., Chairman
William Nice, M.D.
Robert R. Payne, M.D.
John Runnels, M.D.

SPORTS DAY

Leslie L. Saylor, M.D.

VISIT THE EXHIBITS—REGISTER FOR DRAWINGS
A COFFEE LOUNGE WILL BE OPEN IN THE EXHIBIT AREA
THROUGHOUT THE CONVENTION

Sunday Afternoon, May 5, 1974

Ramada Inn, Downtown

- | | | | |
|-------|--|------|---|
| 10:00 | REGISTRATION—TICKETS—INFORMATION
Exhibit Arena | 1:30 | HOUSE OF DELEGATES—FIRST SESSION
Exhibit Arena 3 & 4
<i>Clair C. Conard, M.D., Dodge City</i>
<i>Speaker</i>
<i>M. Robert Knapp, M.D., Wichita</i>
<i>Vice Speaker</i> |
| 11:00 | KANSAS FOUNDATION FOR MEDICAL CARE—
CORPORATE MEMBERS
Exhibit Arena 3 & 4 | | |
| 11:30 | SECTION ON EAR, NOSE AND THROAT
Parlor A | | |
| 12:00 | KANSAS ALLERGY SOCIETY
Parlor C | 6:30 | COCKTAILS FOLLOWED BY DINNER
Topeka Civic Theatre
(Warehouse on the Levee—534½ N. Kan-
sas Avenue) |
| 12:30 | KANSAS FOUNDATION FOR MEDICAL CARE—
BOARD OF DIRECTORS (Luncheon)
Parlor D | | |

TELEPHONE NUMBER 913 233-8981

Monday, May 6, 1974

Ramada Inn, Downtown

MORNING

- 7:30 SPECIALTY SOCIETIES—Breakfast and Business Meetings
KANSAS OBSTETRICAL AND GYNCOLOGICAL SOCIETY
Parlor A
KANSAS SECTION ON OPHTHALMOLOGY
Parlor C
- 7:30 REGISTRATION—TICKETS—INFORMATION
Exhibit Arena
- 7:30 “Early Bird” Breakfast
With the Woman’s Auxiliary to KMS
Lower Lounge North
- 9:00 REFERENCE COMMITTEE A
Parlor D
REFERENCE COMMITTEE B
Exhibition Arena 3

VISIT THE EXHIBITS—REGISTER FOR DRAWINGS
A COFFEE LOUNGE WILL BE OPEN IN THE EXHIBIT AREA
THROUGHOUT THE CONVENTION

SPORTS DAY

KANSAS MEDICAL SOCIETY GOLF, SKEET AND TRAP ASSOCIATION
Leslie L. Saylor, M.D., Topeka, President

- 10:30 GOLFING—Topeka Country Club
- 10:30- 6:00 PILOTS’ BI-ANNUAL PROFICIENCY FLIGHTS
Single or multi-engine instrument in flight or simulator
Arrangements: Courtesy physician pilots of Shawnee County Medical Society
- 1:00 TRAP SHOOT—South Topeka Gun Club
(Hwy. 75—2½ miles south of Forbes AFB)

SPORTS DAY BANQUET

- 6:00 RECEPTION
Topeka Country Club
- 7:30 BUFFET DINNER
“Howard Abernathy Quintet”
Daneing

Drawings for a calculator will be held at the dinner.
You must be present to win! Register at the Exhibit Booths.

TELEPHONE NUMBER 913 233-8981

Exhibit Arena

MORNING

- 7:30 REGISTRATION—TICKETS—INFORMATION
Lower Lobby
- 7:30 PAST PRESIDENTS' BREAKFAST
Parlor C

FIRST GENERAL SESSION

AEROMEDICAL TRANSPORTATION OF THE INJURED
Floyd C. Beelman, M.D., Topeka, Moderator

- 8:30 WELCOME
*Robert D. Parman, M.D., President
Shawnee County Medical Society*
- RESPONSE
*Thomas F. Taylor, M.D., President
Kansas Medical Society*
- 8:45 MEDICAL INDICATIONS AND CONTRAINDICATIONS OF AEROMEDICAL TRANSPORTATION
*Joseph A. Moylan, M.D.
Ass't Professor of Surgery
University of Wisconsin
Madison, Wisconsin*
- 9:30 THE SYSTEMS APPROACH TO TRAUMA PATIENT CARE—THE ILLINOIS EXPERIENCE
*David R. Boyd, M.D., Chief
Bureau of Emergency Medical Services
and Highway Safety
Department of Public Health
Springfield, Illinois*
- 10:15 INTERMISSION TO VIEW EXHIBITS
- 10:30 THE MAST PROJECT IN KANSAS
*Capt. James W. Ouzts
MAST Project Officer
Department of the Army, Ft. Riley*
- 11:15 TRANSPORTATION OF HEAD AND NECK INJURED PATIENTS
*Donald J. Prolo, M.D.
Neurologist
San Jose, California*
- 11:45 PANEL DISCUSSION

TELEPHONE NUMBER

913 233-8981

May 7, 1974

12:30 GENERAL LUNCHEON
Grand Ballroom

*A general luncheon for
physicians and wives with
Richard Ray Taylor, M.D., Lt. General
Surgeon General of the U.S. Army
Washington, D.C.*

*Donald R. Pierce, M.D.
Presiding*

AFTERNOON

SECOND GENERAL SESSION

MEDICO-LEGAL ASPECT OF TRAUMA
M. Martin Halley, M.D., J.D., Topeka, Moderator

2:00 MEDICINE IN TRAUMA AND THE ROLE OF IN-
TERNIST

*Simon Sevitt, M.D.
Consultant Pathologist
Birmingham Accident Hospital and
Rehabilitation Center
Birmingham, England*

2:45 LEGAL LIABILITY IN THE EMERGENCY ROOM
*Jack L. Sachs, LL.D.
Consultant
University of Arizona Medical School
Tucson, Arizona*

3:30 INTERMISSION TO VIEW EXHIBITS

4:00 MEDICO-LEGAL ASPECTS OF FATAL TRAUMA
*William G. Eckert, M.D.
Pathologist
Wichita*

4:45 PANEL DISCUSSION

5:30 SPECIALTY SOCIETIES—Business Meeting
KANSAS ORTHOPEDIC SOCIETY
Town Club, First National Bank Bldg.

6:30 KOS—Cocktails Followed by Dinner
Town Club

TELEPHONE NUMBER

913 233-8981

Tuesday, May 7, 1974

Ramada Inn, Downtown

EVENING

Annual President's Banquet—Kansas Medical Society

5:30 RECEPTION FOR PHYSICIANS AND WIVES

Lower Lounge

Sponsored by K.U. Medical Alumni Association

7:00 DINNER

Grand Ballroom

*Thomas F. Taylor, M.D.
Presiding*

INTRODUCTION OF GUESTS

OATH OF OFFICE TO INCOMING PRESIDENT

Mr. Paul Harvey

A calculator will be given away at the banquet. You must be present to win! Register at the Exhibit Booths.

President and President-Elect



THOMAS F. TAYLOR, M.D.
Salina



JOHN N. BLANK, M.D.
Hutchinson

KMS ANNUAL MEETING PRESIDENT'S BANQUET MAY 7, 1974

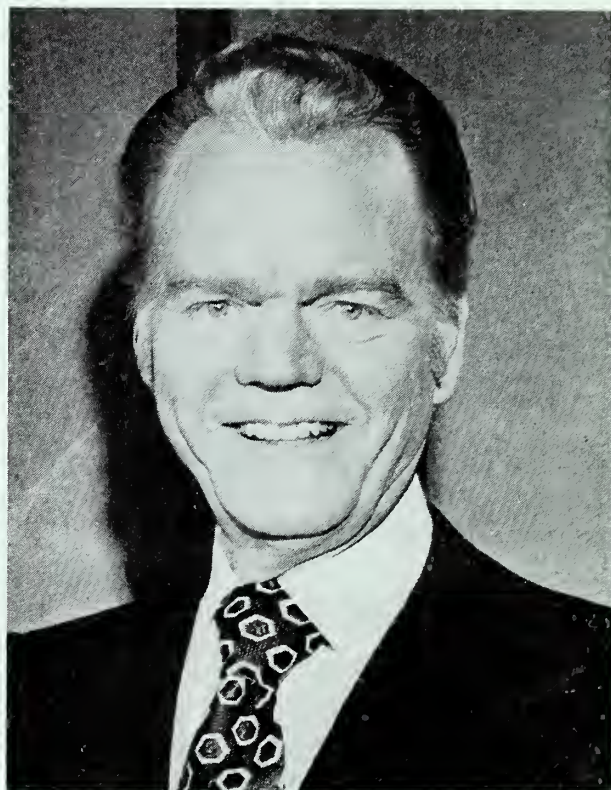
MR. PAUL HARVEY, Banquet Speaker

Mr. Harvey has been the recipient of nine honorary degrees, has been named Radio's Man of the Year by critics of his own industry, and was elected to the Hall of Fame in his home state of Oklahoma. Other honors include Commentator of the Year, Salesman of the Year, and the Gallup Poll list of America's Most Admired Men.

Mr. Harvey has been quoted by virtually every national publication, and every major veterans' organization has saluted his efforts. His broadcasts and newspaper columns have been reprinted in the Congressional Record more than those of any other commentator.

Paul Harvey News is comprised of 600 radio stations, 100 TV stations, and 300 newspapers.

This is the man who makes page three exciting, and page one understandable!



Dr. and Mrs. Thomas F. Taylor extend a personal invitation to members of the Society and their guests to attend the President's Banquet on Tuesday evening, May 7, 1974.

RAMADA INN, DOWNTOWN—TOPEKA

Wednesday, May 8, 1974

Ramada Inn, Downtown

MORNING

- 8:00 REGISTRATION—INFORMATION
Exhibit Arena
- 8:00 HOUSE OF DELEGATES—SECOND SESSION
Exhibit Arena 3 & 4
- 1:00 COUNCIL MEETING AND LUNCHEON
Lower Lounge South

AFTERNOON

The Kansas Society of Pathologists Invites All Physicians to Attend the Wednesday Afternoon and Thursday Scientific Program.

INTERNATIONAL SYMPOSIUM ON FAT EMBOLISM

Phillip L. Baker, M.D., Topeka, Moderator

- 2:00 CLINICAL DIAGNOSIS AND TREATMENT OF
FAT EMBOLISM

*L. P. Peltier, M.D.
Professor of Orthopedics
University of Arizona
Tucson, Arizona*

- 2:45 CRYOSTAT TEST AND PARTICLE COUNTING IN
THE DIAGNOSIS OF FAT EMBOLISM

*Antonio Huaman, M.D.
Ass't Clinical Professor of Pathology
University of Kansas School of Medicine
Topeka*

- 3:15 INTERMISSION

- 3:30 PATHOLOGY OF FAT EMBOLISM

*Simon Sevitt, M.D.
Consultant Pathologist
Birmingham Accident Hospital and
Rehabilitation Center
Birmingham, England*

- 4:15 ETHYL ALCOHOL IN THE TREATMENT OF FAT
EMBOLISM—THE TOPEKA EXPERIENCE

*William Nice, M.D.
Private Practice
Internal Medicine and Chest Diseases
Topeka*

- 4:45 PANEL DISCUSSION

TELEPHONE NUMBER ---

913 233-8981

Thursday, May 9, 1974

Ramada Inn, Downtown

The Kansas Society of Pathologists Invites All Physicians to
Attend the Thursday Scientific Program

SLIDE SEMINAR ON BONE PATHOLOGY
Arthur A. Fink, M.D., Topeka, Moderator

Richard Meidinger, M.D.
Radiologist
Clinical Director of Nuclear Medicine
St. Francis and Stormont-Vail Hospitals
Topeka

William O. Russell, M.D.
Pathologist
M. D. Anderson Hospital and Tumor Institute
Houston, Texas

9:00 FIRST SESSION

12:00 BUSINESS MEETING

KANSAS SOCIETY OF PATHOLOGISTS

2:00 SECOND SESSION

RESOLUTIONS

THE RESOLUTIONS FOR SUBMISSION TO THE HOUSE OF DELEGATES
ARE NOT INCLUDED IN THE JOURNAL. THEY WILL BE MAILED TO
THE MEMBERSHIP PRIOR TO THE ANNUAL MEETING.

Exhibits

The exhibits, located in Exhibit Arenas 1 and 2, will be open Sunday, 12:30 p.m. to 4:00 p.m.; Monday, 7:30 a.m. to 2:00 p.m.; and Tuesday, 7:30 a.m. to 5:00 p.m.

Register at the exhibit booths for drawings to be held at the dinners on Monday and Tuesday evenings.

Booth No.		Booth No.	
1	BRISTOL LABORATORIES Syracuse, New York	12	PFIZER LABORATORIES Chicago, Illinois
4	GENERAL MEDICAL KANSAS Wichita, Kansas	13	BOEHRINGER INGELHEIM, LTD. Elmsford, New York
5	COCA-COLA USA Chicago, Illinois	14	ROWELL LABORATORIES, INC. Baudette Minnesota
6	A. H. ROBINS COMPANY Richmond, Virginia	15	KANSAS INSTITUTE Wichita, Kansas
7	THE MEDICAL PROTECTIVE COMPANY Fort Wayne, Indiana	16 & 18	WYETH LABORATORIES Philadelphia, Pennsylvania
8	MUNNS MEDICAL SUPPLY COMPANY Topeka, Kansas	25	THE UPJOHN COMPANY Kalamazoo, Michigan
9	BLUE SHIELD OF KANSAS Topeka, Kansas	29	U. S. NAVY RECRUITING, AREA 6 Omaha, Nebraska
10	ENCYCLOPAEDIA BRITANNICA, INC. Chicago, Illinois	30	G. D. SEARLE & COMPANY Chicago, Illinois
11	E. R. SQUIBB & SONS, INC. Princeton, New Jersey	31	CIBA PHARMACEUTICAL Kansas City, Missouri

The Kansas Medical Society is grateful for
the convention program grants received from:

DUFFENS OPTICAL COMPANY

Topeka, Kansas

ELI LILLY AND COMPANY

Indianapolis, Indiana

MERCK SHARP & DOHME

West Point, Pennsylvania

A. H. ROBINS COMPANY

Richmond, Virginia

A COFFEE LOUNGE WILL BE OPEN IN THE EXHIBIT AREA THROUGH-
OUT THE CONVENTION—*Compliments of Berlin-Wheeler, Inc., Topeka.*

Woman's Auxiliary to the Kansas Medical Society

May 5-8, 1974, Topeka

Sunday, May 5

- 1:00-4:00** REGISTRATION—RESERVATIONS
HOSPITALITY ROOM
Parlor B, Ramada Inn
- 6:30** COCKTAILS, DINNER, SHOW: "Red, White & Wonderful," by Shawnee County Medical Auxiliary
Topeka Civic Theatre, Warehouse-on-the-Levee (534½ N. Kausas)

Monday, May 6

- 8:00-4:00** REGISTRATION—RESERVATIONS
HOSPITALITY ROOM
Parlor B, Ramada Inn
- 7:30-9:00** "EARLY BIRD" BREAKFAST
Medical Society and Auxiliary
Lower Lounge North
"Why AMA?"
Kenneth C. Sawyer, M.D.
AMA Board of Trustees
- 10:00** PRE-CONVENTION BOARD OF DIRECTORS MEETING
Lower Lounge South
Mrs. L. R. Pyle, President
Woman's Auxiliary to KMS
Presiding
- 1:00** LUNCHEON—HONORING PAST STATE PRESIDENTS AND STATE OFFICERS
Topeka Club (Merchants National Bank Bldg.)
Speaker: Robert W. Richmond
State Archivist
Kansas State Historical Society
"When Hoops Did Tilt and Falsehood Was in Flower"
Mrs. John Cokely, President
Shawnee County Medical Auxiliary
Presiding
- 2:15** TOUR OF HISTORICAL MUSEUM

- 6:00** SPORTS DAY RECEPTION, DINNER AND DANCE
Topcka Country Club

Entertainment:
Howard Abernathy Quintet

Tuesday, May 7

- 8:00-4:00** REGISTRATION—RESERVATIONS
HOSPITALITY ROOM
Parlor B, Ramada Inn
- 7:30** PAST STATE PRESIDENTS BREAKFAST BUFFET
Green Room, LeFlambeau, Ramada Inn
- 8:00** BUFFET BREAKFAST
Lower Lounge North
- 9:00-12:00** GENERAL SESSION
Lower Lounge South
- 1:00** SOCIAL HOUR AND LUNCHEON—HONORING
MRS. HOWARD LILJESTRAND, PRESIDENT-ELECT, WOMAN'S AUXILIARY TO THE AMA
Town Club (First National Bank Bldg.)
Mrs. L. R. Pyle
Presiding
- 5:30** K. U. MEDICAL ALUMNI RECEPTION
Lower Lounge, Ramada Inn
- 7:00** PRESIDENT'S BANQUET—KANSAS MEDICAL SOCIETY
Ballroom, Ramada Inn
Speaker: Mr. Paul Harvey

Wednesday, May 8

- 8:00** REGISTRATION
HOSPITALITY ROOM, Parlor B, Ramada Inn
- 8:30** CONTINENTAL BREAKFAST
Parlor B, Ramada Inn
- 9:00** POST-CONVENTION BOARD OF DIRECTORS MEETING
Parlor B, Ramada Inn
Mrs. Warren Meyer
Presiding

Kansas Medical Assistants Society

May 3-5, 1974, Ramada Inn, Topeka

Friday Evening, May 3

- 6:00 REGISTRATION—Lower Lobby
6:30 PAST PRESIDENTS' MEETING—Green Room
8:00 "MEXICAN FIESTA"—Lower Lounge
—*Courtesy Muuns Medical Supply Company, Inc.*

Saturday, May 4

- 7:30 EXECUTIVE BOARD MEETING—Parlor D
7:30 MINI TEST—Parlor B
8:00 REGISTRATION—Lower Lobby
COFFEE AND ROLLS—Lower Lobby
—*Courtesy Berlin-Wheeler, Inc., Topeka*
9:00 CALL TO ORDER—Lower Lounge
Kathryn Crawford, Topeka, President
Kansas Medical Assistants Society
9:10 WELCOME
R. D. Parman, M.D., Topeka
President
Shawnee County Medical Society
9:20 RESPONSE
Thomas F. Taylor, M.D., Salina
President
Kansas Medical Society
MEMORIAL SERVICE FOR VIRGINIA BRAND
9:30 HOUSE OF DELEGATES
Marilyn Young, Topeka
Speaker of the House, presiding
12:00 "LUNCHEON AT ANTOINES"—Parlor D
KMAS Component Chapter Presidents
12:00 CMA LUNCHEON—Parlor B
1:30 GENERAL SESSION—Lower Lounge
1:30 T.I.A.'s EARLY WARNING SIGNALS OF STROKES
Phillip E. Mills, M.D., Topeka
Neurologist

2:30 OFFICE SURVIVAL

James N. Nelson, M.D., Topeka
Psychiatrist

3:15 COFFEE

—*Courtesy Berlin-Wheeler, Inc.*

3:30 THE BATTERED CHILD SYNDROME

Arthur C. Cherry, M.D., Topeka
Pediatrician

7:00 BANQUET—"VISIT TO THE FAR EAST"—Ballroom

MASTER OF CEREMONIES

G. Bernard Joyce, M.D., Topeka

INTRODUCTION OF CHAPTER PRESIDENTS AND KMAS PAST PRESIDENTS

INSTALLATION

Sunday, May 5

7:30 EXECUTIVE BOARD MEETING—Room 201

7:30 CMA WORKSHOP—Parlor B

8:00 CONTINENTAL BREAKFAST—Lower Lobby

—*Courtesy General Medical Kansas Wichita*

9:00 CALL TO ORDER AND ANNOUNCEMENTS

Lower Lounge

9:20 AAMA REPRESENTATIVE AND TRUSTEE

Rita A. Paris, R.T., CMA, AC
Fort Worth, Texas

9:45 RESPIRATORY THERAPY

Fred W. Schmitz, Kansas City, Missouri
Muuns Medical Supply Company

10:30 COFFEE

—*Courtesy General Medical Kansas*

10:45 MY IMPRESSIONS OF MOSCOW AND LENINGRAD

Gertrude E. Lewis Wharton, Topeka
Public Relations Representative
Santa Fe

12:00 LUNCHEON—"UNITED NATIONS"—Ballroom

Councilor Reports

Activities in the Council Districts of Kansas

DISTRICT 2

District 2, the Wyandotte County Medical Society, assisted with the Leadership Conference of the Kansas Medical Society held February 1-2, 1974, at the Crown Center. Members of Wyandotte County Medical Society served on the planning committee with Dr. John Blank, and the Society acted as the host society for this meeting. Several excellent speakers were obtained for this meeting and it is hoped that this conference will be continued on an annual basis.

The Council District meeting was held in November, with Doctor Taylor and Oliver Ebel, and it was one of the best meetings this Society has had in many years.

In hopes to increase Wyandotte County membership in the Kansas Foundation for Medical Care this year, personal letters were sent to all members of Wyandotte County Medical Society urging them to join the Foundation.

This district continues to be active in the Legislative Committee of the Kansas Medical Society, with the Councilor as a voting member of the committee and our Executive Secretary as an ex-officio member of the committee.

Wyandotte County Medical Society has continued its efforts to improve emergency medical care available in its community by working with the City of Kansas City, Kansas, and the Kansas University Medical Center. With the arrival of Dr. Norman McSwain at the Medical Center, we were able to finalize plans to institute a Type I attendant training program. The first class of mobile intensive care technicians started in February, and will be providing sophisticated emergency medical care to the residents of our community in July.

JOHN D. HUFF, M.D., *Councilor*

DISTRICT 3

Council District 3, Johnson County Medical Society, had both an ordinary and an extraordinary year. Thirteen new members were added, one member moved to California, three members retired, and one was deceased.

Education-wise, we heard speakers such as: David W. Robinson, M.D., Professor of Surgery and Head of

the Burn Center, KUMC; Richard Harte, M.D., Clinical Professor, University of Missouri at Kansas City, on the hyper-kinetic children; Drs. Edward DeFoe and Wynona Hartley, Department of Human Ecology, KUMC. Also, a panel concerning hospitals' facility development for the metropolitan Kansas City area, which has involved numerous efforts on the part of our representatives with the Mid-America Comprehensive Health Planning Agency, was presented. It would appear that in spite of efforts on the part of the medical society to limit the number of new hospital beds in the district in order not to overextend and increase the cost of medical care to the consumer, that a private-for-profit type hospital may be on the scene in the future.

One of our members, Dr. A. A. Armbruster, did an outstanding job in developing our plan for the area emergency medical services, which will ultimately involve at least two rescue units and will be a part of the metropolitan emergency rescue program.

The Johnson County Medical Society contributed \$1,400 of accumulated county revenue to the Olathe Community Hospital library.

If it becomes necessary to have an active PSRO committee, it is intended to coordinate this committee's activity with a similar committee from Wyandotte County Medical Society and a committee from the Kansas University Medical Center.

DONALD J. SMITH, M.D., *Councilor*

DISTRICT 4

Dick B. McKee, M.D., acting councilor from District 4, advises that due to the death of the elected councilor, Dr. William G. Rinehart, no formal report of the activities in this district will be presented.

DISTRICT 5

Spirited discussion marked the official visit of President Tom Taylor to Council District 5. The District was also proud to host the fall meeting of the Kansas Medical Society in Manhattan. Medical Society policy on medical bills proposed for the 1974 session of the Kansas Legislature was established during the meeting.

In spite of such preparation, the session was troublesome to your Legislative Committee, although little ac-

tual encroachment upon your practice of medicine came about by new law.

New licensing laws were passed covering emergency care personnel and nursing assistants. The nursing association proposed an ambiguous licensing law which was deferred for interim study and presentation to the next session.

Acupuncture was blunted and shunted into interim study. The naturopaths mounted a well-coordinated lobbying effort and were nearly declared the legal equivalent of all practitioners of the healing arts. This too was deferred eventually to interim study.

Bottled up in committee was a bill requested by the state director of Social and Rehabilitation Services (Robert Harder, Social Welfare), which would have removed the last restriction upon his office to set your fees eliminating the "reasonable charges" concept.

An observation on this legislature: the climate seems less favorable to physicians than in the years past. It is vital to our future that each physician know his Senator and Representative personally and have his ear to hear our views on legislation affecting our patients and their health care. This means: contribute to your legislators' campaign, work for him. If he's unfriendly, help replace him.

The enabling laws of federal programs will be affected by our state legislature. The Kansas Medical Society and YOU as an individual member must be able to speak to and assist in developing these laws.

We all know about the threatening legislation currently proposed in the Congress. Information gathered at the AMPAC Workshop in Washington, D. C. this spring suggests that only coverage for catastrophic illness will be passed by this Congress.

The next Congress will be elected in November. George Meany says he will have a "veto-proof" Congress elected by labor organized campaigns. The labor health bill is the Kennedy bill—compulsory.

In the past three special elections last month (including Jerry Ford's Michigan District), COPE (AFL-CIO political arm) contributions were 33 per cent, 35 per cent, and 40 per cent of the money spent. A well-trained campaign-election force of workers from out of the district was sent into each election. This kind of expense never shows up on campaign finance reports.

Any Congressman receiving 20 to 40 per cent of his support from COPE will vote accordingly. It is necessary only to compare the voting records of the four Kansas Congressmen with that from the 5th to understand this. The one who has voted most consistently opposite to the rest of the Kansas delegation spent \$148,000 for his last campaign for re-election ("Wichita

Eagle," March 24). The other four put together spent a total of \$114,574 in four districts—\$34,421 less than the Labor-backed candidate.

The man who pays the piper calls the tune!

We have many friends and need more. KaMPAC needs the support of KMS physicians to protect the seats of Kansas Congressmen and Senators who have always been friends to us and the free-enterprise system. A \$100 sustaining membership in AMPAC-KaMPAC should be the minimum insurance policy for physicians in Kansas this election year.

GERALD MOWRY, M.D., *Councilor*

DISTRICT 6

In Shawnee County, we have been using the television media to disseminate medical information on a variety of subjects. Local physician panels have appeared on the educational TV station following the nationwide series, "The Killers," dealing with major problems such as cardiac and pulmonary disease, and trauma. On a weekly basis, our county society is sponsoring a series of three-minute medical reports which are shown on a commercial TV station following the 5 o'clock and the 10 o'clock news. The response so far has been favorable, and the preparation of the scripts is being shared by many of our members.

The Topeka residency program for pediatrics and for thoracic and vascular surgery has become functional this year and the plans for medical residents from KUMC are being completed. Regular seminars and grand rounds have been coordinated through the county medical Foundation and are involving each of the hospitals in our area. We are pleased that these *local* efforts for better medical care have been accomplished in spite of continued reports, rumors, and endless meetings concerning PSRO, HEW, HMOs, etc.

RICHARD R. BEACH, M.D., *Councilor*

DISTRICT 8

Council District 8 had a good attendance for its annual meeting, which was held on October 25, 1973, at the Arkansas City Country Club in Arkansas City, Kansas.

Dr. Thomas F. Taylor, the Kansas Medical Society President, presented some of the problems facing medicine today and in the future and outlined some of the Society activities. He was accompanied on his trip by Mr. Jerry Slaughter, the administrative assistant.

This being an election year, our programs have been primarily on a political basis with Mr. Vern Miller, Kansas Attorney General; Dr. Bill Roy, U. S. Repre-

representative from Kansas; and Mr. Joe Skubitz, U. S. Representative from our Fifth Congressional District, as guest speakers. The attendance from Cowley County and the surrounding counties was very good. We have also been very pleased by the number of people present at the circuit courses held in Winfield this year. As you know, we have physicians not only from Kansas but also a number from Oklahoma, who attend these meetings every year.

We hope that the opening of the new Wichita State University Branch of the University of Kansas School of Medicine in January of this year will create interest among the students in returning to the south-central portion of Kansas to practice.

SIGURD S. DAEHNKE, M.D., *Councilor*

DISTRICT 9

Members of Council District 9 met for their annual fall meeting at the Concordia Country Club, Concordia, on November 19, with some 50 of the 90 members present. President Taylor spoke on some of the legislative matters which were to come up before the state legislators.

We presently have only about 46 out of a possible 93 members who have joined the Foundation. Our Peer Review Committee for Council District 9, serving under the auspices of the Foundation until such time when further directives are forthcoming, are as follows: Drs. Martin B. Klenda, Beloit; Roy Nixon, Concordia; Gordon Maxwell and Don Goering, Salina. It will be our aim in the coming year to have a larger number of physicians become involved in the Foundation, as well as peer review committees, as soon as the Foundation becomes operational in regards to PSRO.

KERMIT G. WEDEL, M.D., *Councilor*

DISTRICT 10

The year 1973 has been a busy one for District 10, which is comprised of Harvey, Marion, McPherson, Reno, and Rice counties. The Council District meeting was held at the Elk's Club in Newton on November 8, 1973, and was well attended by physicians and their wives representing most county societies in District 10. Dr. Tom Taylor gave us an excellent discussion of the problems, old and new, confronting the Kansas Medical Society. Questions and answers following his talk showed a real grass roots interest in solutions to these problems.

Kansas has been designated as a single PSRO and

the Kansas Foundation has applied to be the agent. An April 4 meeting is planned to hear presentations from various data processing systems and from Blue Cross-Blue Shield, for a plan for the Foundation to function in response to the PSRO legislation. A recommendation will then be made by the Foundation board for presentation at the annual corporate meeting in May.

The leadership conference held at Crown Center in Kansas City, Missouri, was excellent and it is our hope that in future years more county medical society officers will attend these meetings.

Please try to attend the Kansas Medical Society spring meeting in Topeka in May. My term as Councilor for District 10 will be up this May, so please give thought to a successor. It has been a real pleasure and an excellent experience to have served as your Councilor.

RICHARD M. GLOVER, M.D., *Councilor*

DISTRICT 11

This past year has seen the solidification of the Medical Society of Sedgwick County Foundation Plan. Agreements have been secured with other allied health professionals, locally, such as the pharmacists, optometrists, podiatrists, osteopaths, the nursing homes, and hospitals. They have agreed to provide services under the umbrella of the Foundation. However, after repeated contacts and attempting to work with the Director of the Kansas Department of Social Welfare on a contract to provide care for the Title XIX cases in Sedgwick County, it became evident that there was a vast difference between what the Director stated he wanted in print and what he actually wanted as the time for finalization and signing of the contracts neared. Because of this impasse, the Society has directed the Foundation committee to begin exploration of involvement of the Foundation in the private sector of health care. The committee has been charged by Society President, Dr. Ralph Hale, to investigate and draft proposals to be presented to the Society membership in the near future.

Last January saw the arrival of medical students from the University of Kansas School of Medicine in the Wichita area for clinical training. The association of Wichita State University and the KU Medical Center to provide this training has involved a good portion of the Society in instrumentation of this program. Members of the Society have been actively involved on the Wichita Medical Education Association as members of the medical education departments of their particu-

lar hospitals. They have served on the curriculum committee to determine the curriculum to be presented in Wichita; they have served on search committees that have engaged department heads. Dr. George Farha serves as the head for the Department of Surgery, and Dr. Ernest Crow is the acting head of the Department of Internal Medicine. In addition to this, a large number of physicians in private practice have agreed to accept teaching positions and will be involved in lectures and also in allowing the young students to work with them. The first students arrived in January of this year, and all sides are looking at this innovative program with interest and enthusiasm. There is no doubt that problems will arise, but with the enthusiasm and cooperation that have been shown, it appears that problems will be minor and will be overcome.

The Society is reaching finalization of its plan to provide pocket pagers, to help physicians be more readily available to their patients. It is felt that this will reduce the efforts encountered by the office, hospital, or home in locating the physician.

Last May, this Society had the privilege and honor of hosting the annual meeting of the House of Delegates of the Kansas Medical Society. From comments received, it was an excellent meeting and a good deal was accomplished. In addition to the formal business of the Society, the athletic and social events were well attended and seemed to be enjoyed by all.

The Medical Society of Sedgwick County is proud that a member and former president of its Woman's Auxiliary will ascend to the presidency of the Woman's Auxiliary to the Kansas Medical Society at the annual meeting of the Auxiliary in May. The Society extends its congratulations to her and knows that she will do an excellent job in leading the Auxiliary and carrying out the wishes of the Kansas Medical Society for the coming year.

This past year has again seen a healthy increase in the membership growth of the Medical Society of Sedgwick County. One year ago, membership was 430 members, and at the present time it stands at 460 members.

A very active year is forecast on the political scene, particularly in the state legislature. The Society Legislative Committee will again meet regularly throughout the legislative session, going over bills that pertain to medicine and present medicine's viewpoint to our local Senators and Representatives. Each local legislator has a contact man among the physicians who knows the legislator personally and with whom he can communicate. This has been effective in the past, and we look forward to its continued effectiveness. Also, a dinner

was held for the legislators from Sedgwick County and their wives, sponsored by the Medical Society. As in the past, this was an informal get-together, without any real hard sell, and has been well received by the legislators.

WARREN E. MEYER, M.D., *Councilor*

DISTRICT 12

District 12 consists of Pratt, Kingman, Sumner, Harper, and Barber counties. The annual Council District meeting was held at Harper, because of its more central location. The members and their wives were addressed by Dr. Tom Taylor, President of the Kansas Medical Society. He discussed some of the problems facing the doctors in the Kansas Medical Society.

Wellington and Pratt have each proven that cities of 8,000 population can support a radiologist. Wellington has shown that it can support a pathologist and, thus, increase the effectiveness of its hospital.

Like the rest of Kansas, we are still short of primary care physicians as well as specialists.

The biggest loss to District 12 was Dr. Ned Burkett moving to the KU Medical Center. We all wish Ned well, and realize that our loss is Medical Center's gain.

VERNON W. FILLEY, M.D., *Councilor*

DISTRICT 13

During the year 1973, District 13 continued its improvement of regional medical facilities. St. Anthony Hospital, in Hays, enjoyed its first full year in the new institution. Hadley Regional Medical Center, in Hays, is now completing a total update of all of its facilities with the establishment of a brand new multi-million-dollar wing.

Dr. Francis Bice, of Wakeeney, formerly a member of the Kansas State Board of Health, retired from his practice in Wakeeney and relocated in Florida. Dr. Gardner Surface was honored for his long service to the Ellis community, and Gardner Surface Day was proclaimed by Governor Docking on Sunday, November 4, 1973. Fortunately, there have been no physician deaths in the region, and we continue to attract new specialists, including three new pediatricians.

The annual Council District meeting, with President Tom Taylor, was held on November 15. Dr. Taylor's visit and the visits by members of the staff, Jim Agin and Jerry Slaughter, have continued to improve the regional liaison with the Kansas Medical Society office in Topeka. Dr. Murray Eddy, now retired, a past president of the Kansas Medical Society, attended a Coun-

cil meeting in Topeka and was received and recognized by his old friends.

Districts 13 and 16 have profited from their cooperation with the Northwest Central Health Services Education Activity programs, sponsored out of Fort Hays State College and Colby Community College. Many of the physicians in this region have actively participated in the training of the first group of emergency medical technicians. On April 20, 1974, the Ellis County Medical-Dental Association will sponsor its second biennial health care conference at Fort Hays State College, entitled "Health Care—Who?" A complete announcement of this event is carried in *THE JOURNAL*.

The peer review group has been reorganized to conform to the outlines of the Kansas Foundation for Medical Care, and is now functioning actively under the new organization. The program for the placement of family practice residents in Phillipsburg has been continued successfully. The nurse clinician program is continuing in this district.

L. WM. HALLING, M.D., *Councilor*

DISTRICT 15

The preceding year has once again seen the number of primary care physicians dwindle in Council District 15. This has been accelerated by the retirement of Dr. Glenn H. Jackman, in Cimarron; Dr. Richard E. Speirs, in Dodge City; and the unfortunate deaths of Dr. Jerry H. McNickle, of Ashland, and Dr. William W. Orrison, of Meade.

Our Council District has many communities that are left without a physician practicing within it and, unfortunately, even some counties are without primary care physicians. Cimarron, Ashland, Spearville, and Montezuma are now without physicians. We have all realized that some innovative way of delivering health care to a relatively small population, but spread over great distances, must be accomplished.

At our Council District meeting, with our President Tom Taylor present, we emphasized to him the dire need of recruiting physicians for our area. We also discussed at length PSRO, allied professions, and in all, came away feeling that our message was received.

There have been two attempts to provide primary medical care under direct physician supervision undertaken in this district within the last year. One involves a physician assistant who is stationed in Montezuma and supervised out of Garden City. The second is a nurse clinician who is stationed in Cimarron, Gray County, Monday through Friday, on approximately a

nine-hour basis with a direct telephone communication system to Dodge City. Hopefully, this telephone communication will soon be replaced with closed circuit TV. The community has been surveyed by a questionnaire which does not require signatures, and it is the medical community's feeling that the program is providing direct access into a health care delivery system that is easily accessible, and aiding in delivering quality care to an area without a physician on premise. Until more physicians can be enticed to come to Western Kansas, this is probably going to be the salvation of the already overworked physicians in the area.

We look forward to the coming year with the anticipation that more physicians can be recruited and stimulated to come to Western Kansas and help shoulder some of the awesome burden of an ever dwindling physician population here.

EVAN R. WILLIAMS, M.D., *Councilor*

DISTRICT 16

The physician manpower situation of Northwest Kansas is similar to what it was last year: too few and everyone is a year older.

On January 12, 1974, approximately 35 candidates from this area graduated from the Emergency Medical Technician program (EMT). This should improve ambulance care and emergency care to the injured considerably. This program was initiated years ago by an act of Congress, made possible by the Good Samaritan Law of 1966, directed by the K.U. Medical Center, and funded by the Kansas Regional Medical Planning Organization. At last, something genuinely tangible and beneficial has occurred.

HERMAN W. HIESTERMAN, M.D., *Councilor*

DISTRICT 17

The Southwest Kansas physicians have kept very busy. We continue to serve our patients, although we are seeing more patients per doctor now than in the past. Wichita County (Leoti) has had no doctor since October 1973. This requires the physicians in the neighboring counties to care for even more patients. We welcome the new doctors who have moved into our district, but this has not kept pace with those leaving, retiring, or those who have deceased. The Family Practice Program will be helping to relieve this drastic shortage of doctors, we hope.

Syracuse has opened a new hospital, rest home, doctors' offices, and extended care unit which will help this

community's health care problems.

Many meetings have been held by the Southwest Region Health Planning Council. These are dedicated men and women of our communities. Many facets of our medical care have been brought to light, aired and discussed, which has been beneficial to the health care of our communities now and for the future.

We continue to seek new physicians and paramedical personnel.

GALEN W. FIELDS, M.D., *Councilor*

DISTRICT 18

Council District 18 met December 20, 1973, at the Ottawa Country Club, Ottawa. Tom Taylor, M.D., Salina, President of the Kansas Medical Society, spoke to the assembly concerning PSRO. The members elected Glenn Madsen, M.D., of Lawrence, Councilor of District 18, to take office after the meeting of the House of Delegates.

A. C. MITCHELL, M.D., *Councilor*

NECROLOGY REPORT

Following is a list of the members of the Kansas Medical Society whose deaths have been reported since the last meeting of the House of Delegates.

<i>Name and Address</i>	<i>Date</i>
Lester D. Bowles, <i>Wamego</i>	57 Nov. 21, 1973
William Brown, <i>Paola</i>	68 Nov. 8, 1973
Harold L. Collins, <i>Beloit</i>	68 May 6, 1973
Michael J. Cox, <i>Dodge City</i>	73 July 3, 1973
John A. Farley, <i>Topeka</i>	90 Dec. 4, 1973
Clinton C. Fuller, <i>Columbus</i>	80 Mar. 15, 1973
George H. Grieve, <i>Turon</i>	89 Mar. 11, 1973
Charles O. Hoover, <i>Quinter</i>	93 May 30, 1973
Harry W. King, <i>Kansas City</i>	83 Aug. 29, 1973
Marcella M. Krahenbuhl, <i>Shawnee Mission</i>	51 Sept. 29, 1973
Bertrand I. Krehbiel, <i>Topeka</i>	70 July 20, 1973
Robert D. Lindeman, <i>Salina</i>	45 Dec. 1, 1973
William McKinney, <i>Baxter Springs</i>	93 Mar. 1, 1974
C. Herbert Munger, <i>Emporia</i>	92 May 5, 1973
William W. Orrison, <i>Meade</i>	52 Aug. 29, 1973
George A. Patton, <i>Atchison</i>	85 Apr. 15, 1973
Lawrence A. Proctor, <i>Parsons</i>	68 June 22, 1973
John W. Randell, <i>Marysville</i>	82 Jan. 1, 1974
Willard C. Schwartz, <i>Manhattan</i>	73 Nov. 18, 1973
Donald Selzer, <i>Topeka</i>	50 Jan. 18, 1974
Elwyn S. Shonyo, <i>Clatlin</i>	62 Aug. 13, 1973
Marvin O. Steffen, <i>Great Bend</i>	66 Aug. 18, 1973
Albert E. Titus, <i>Cottonwood Falls</i>	88 Nov. 1, 1973
J. Albert Wheeler, <i>Marion</i>	74 May 13, 1973
Harold O. Williams, <i>Cheney</i>	71 Oct. 3, 1973

Nominating Committee

The Nominating Committee of the Kansas Medical Society met on Thursday, March 14, 1974, and submits to the House of Delegates the following list of nominations for the elective offices of the Society. Wherever more than one nomination appear, these are presented in alphabetical order. A very brief biography accompanies each name.

President-Elect

John W. Travis, M.D., Topeka. Born in 1929. Graduated from the Northwestern University School of Medicine in 1955.

First Vice-President

Emerson D. Yoder, M.D., Denton. Born in 1914. Graduated from the University of Kansas School of Medicine in 1949. Has served as Constitutional Secretary.

Second Vice-President

Richard M. Glover, M.D., Newton. Born in 1921. Graduated from the University of Kansas School of Medicine in 1953. Is now serving as Councilor.

John D. Huff, M.D., Kansas City. Born in 1921. Graduated from the University of Kansas School of Medicine in 1952. Is past president of the Kansas Academy of Family Practice. Is now serving as Councilor.

Chester M. Lessenden, Jr., M.D., Topeka. Born in 1918. Graduated from the University of Kansas School of Medicine in 1943. Is now serving as Treasurer. Is Chairman of Kansas Dermatology Society.

Warren E. Meyer, M.D., Wichita. Born in 1927. Graduated from the Northwestern University School of Medicine in 1951. Is now serving as Councilor.

Constitutional Secretary

Phillip A. Godwin, M.D., Lawrence. Born in 1928. Graduated from the University of Kansas School of Medicine in 1955. Is now serving as Constitutional Secretary.

Treasurer

Edward G. Campbell, M.D., Emporia. Born in 1931. Graduated from the University of Kansas School of Medicine in 1961. Is now serving as Councilor.

Spencer C. McCrae, M.D., Salina. Born in 1918. Graduated from the New York College of Medicine in 1943. Has served as Councilor.

Richard Meidinger, M.D., Topeka. Born in 1939. Graduated from the University of Kansas School of Medicine in 1965. Has been active in Society affairs and has served on committees.

AMA Delegate

George E. Burket, Jr., M.D., Kansas City. Born in 1912. Graduated from the University of Kansas School of Medicine in 1937. Has served as President. Is now serving as AMA Delegate.

AMA Alternate

Alex Scott, M.D., Junction City. Born in 1923. Graduated from the University of Wisconsin School of Medicine in 1948. Has served as Councilor.



Personalities—IN KANSAS MEDICINE

Carl K. Zacharias, Dodge City, was awarded the Americanism Medal and certificate for outstanding naturalized citizens by the Daughters of the American Revolution.

Among those attending the KUMC postgraduate course in anesthesiology, held in Hawaii, were William J. Collier, McPherson, and Charles F. Henderson, Parsons.

Dillis L. Hart, Wichita, addressed the students and faculty of Tabor College in a Focus Session recently.

The American Board of Family Practice elected George E. Burket, Jr., Kansas City, its new vice-president.

Kenneth L. Graham, Leavenworth, was one of the featured speakers at the "Young Family '74" conference held recently on the Washburn University campus, Topeka.

Kansas Chapter of the American Arthritis Foundation has announced the following grants for research projects: Frederick W. Reckling, Kansas City (origination and development of rheumatoid arthritis); John A. Lynch, Topeka (total joint replacement); Frederick Wolfe, Wichita (rheumatoid factor); Marc A. Asher, Kansas City (prevention of osteoporosis).

Charles H. Miller, Parsons, has announced his retirement from 40 years of active practice.

"Problems of the Older Diabetic" was the topic of the discussion presented by John Crary, Topeka, at a recent meeting of the Diabetes Association.

Hughes W. Day, Kansas City, was the guest speaker

at the annual dinner of the Kaw Valley Heart Association.

Attending the KUMC postgraduate course for surgeons in Mexico City were T. G. Duckett, Hiawatha, and C. C. Underwood and Kenneth Lohmeyer, Emporia.

Richard A. Siemens, Lyons, presented a program to the regional gathering of the Kiwanis clubs. The topic dealt with terminal illness.

NEW MEMBERS

The JOURNAL takes this opportunity to welcome these new members into the Kansas Medical Society.

Shelby C. Dickerson, M.D. John A. Pazell, M.D.
Box 700, K.U.M.C. 155 South 18th St.
Kansas City, Kansas 66103 Kansas City, Kansas 66102

Jerry D. Hall, M.D. Robert D. Porter, M.D.
1101 E. Spring K.U.M.C.
Anthony, Kansas 67003 Kansas City, Kansas 66103

Charles R. Hartman, M.D. Thayer E. Nelson, M.D.
K.U.M.C. 710 West 8th St.
Kansas City, Kansas 66103 Ft. Scott, Kansas 66701

Carl Held, M.D. Hernando Pedraza, M.D.
3244 E. Douglas Hertzler Clinic
Wichita, Kansas 67208 Halstead, Kansas 67056

Herbert Ingham, M.D. Harvey C. Sanders, M.D.
404 Maine 600 Nebraska
Lawrence, Kansas 66044 Kansas City, Kansas 66101

James H. Lipsey, M.D. D. J. Stechschulte, M.D.
7301 Mission Road K.U.M.C.
Shawnee Mission, Kansas Kansas City, Kansas 66103
66208

Norman E. McSwain, Jr., V. T. Tandoc, Jr., M.D.
M.D. 7 Circle Drive
K.U.M.C. Newton, Kansas 67114
Kansas City, Kansas 66103

Douglas P. Weddle, M.D.
710 West 8th St.
Ft. Scott, Kansas 66701

Rolando R. Mesina, M.D. Frederick Wolfe, M.D.
1102 Minnesota 345 N. Hillside
Kansas City, Kansas 66103 Wichita, Kansas 67214

Stanley J. Mosier, M.D. John W. Wiens, M.D.
1001 N. Minneapolis P. O. Box 640
Wichita, Kansas 67214 Moundridge, Kansas 67107

The D. C. Line

Editor's Note: The Editorial Board feels that the Kansas Medical Society would profit by maintaining contact with Representative Bill Roy, both as a source and interpreter of political activities on the national medical front. Accordingly, we are initiating a monthly column written by Dr. Roy. It is hoped that this will not only provide the service intended, but invite a response of readership either through the JOURNAL or to Dr. Roy directly.

In this month's column, I would like to commence Part One of a two-part series on a subject which affects the daily practice of medicine—the impact of spiraling inflation on hospital expenditures.

Inflationary pressures have pushed our total annual health care expenditures upward each year. There are a lot of ways of measuring increasing health care expenditures, but the one that I prefer is a relative measurement. We as a nation were spending about 4.5 per cent of our gross national product, that is, the total dollar value of all goods and services, for health care 20 years ago. Today, we are spending nearly 8 per cent of a much larger gross national product. So, the increase in total costs is one very good reason for talking about institutional costs today.

Another very good reason is that institutions, hospitals, and nursing homes consume 50 per cent of the total expenditures for health care. Only 30 per cent goes for the professional fees, the fees of physicians, dentists and other health professionals, and only 10 per cent is expended for payment of prescriptions.

A final good reason for talking about hospital costs today is that expenditures for hospital care are rising much more rapidly than other expenditures—in spite of great efforts by hospital administrators, boards, and nearly anyone else with any power to interfere.

But, it is said, no wonder hospital costs are going up. Look at how much wages have increased and how much more we are paying for everything we buy, *i.e.*, the inflation in the general economy over the past few years.

It is true that hospital wages have gone up more rapidly than wages in the nation as a whole. From 1965 to 1972, hospital wages went up at the annual rate of 8 per cent, and payroll expenses are 57 per cent of hospital costs.

There has been a one-time catch-up of hospital wages and salaries. Now hospitals pay wages and salaries on a reasonable par with comparable industries. In the future, it is not likely that hospital wages and salaries will increase more rapidly than wages and salaries in the nation as a whole.

It is also true that hospitals have had to pass through increases in costs of supplies and other items. Food, fuel, syringes, medication, and other essential items have increased in cost during the period of 1965 to 1972—but only at the rate of 4.1 per cent.

Wages have gone up 8 per cent per annum. The cost of goods has gone up 4.1 per cent per annum. From these two figures, which are to be averaged, not added, one would expect hospital costs to rise about 6 to 7 per cent during those years.

But hospital costs increased on an average of 13 per cent per year during the years in question, 1965-1972. We have accounted for one-half of the costs. What accounts for the other 50 per cent of rapidly rising hospital expenditures?

This informed audience knows. Hospitals are delivering more units of care and they are delivering more expensive units of care.

Why? For primarily one reason. The life sciences in general, and hospital care in particular, are on the cutting edge of the overwhelming, overriding, dominant factor of the time in which we live—the scientific and technologic revolution.

In Part Two, next month, I will examine further the cost implications of this revolution of knowledge on hospital costs.—W.R.R.

Letters to VOX DOX should be addressed to the Vox Dox Editor, Journal of the Kansas Medical Society, 1300 Topeka Avenue, Topeka, Kansas 66612.

An Open Letter

(Continued from page 136)

gain some insight into the reaction a seemingly innocuous request for information can prompt when it arrives on *some* desks.

With warm but competitive regards, we have the honor to remain

Yr. Obedt. Svt.

—D.E.G.

How to Do Things Wrong

JAMES H. RANSOM, M.D., Topeka

(Editor's Note: In response to our editorial of February, Dr. Ransom has written the following comments which we are pleased to print as representing considered comments of a differing viewpoint—the type of dialogue we hope to stimulate in the pages of the JOURNAL.)

Say the newsmen are asking the press secretary about a specific problem. "Oh yes," he assures them, "we're doing something about that." What "something" means here is *anything*, for the emphasis is really on the *doing*; and whatever it is they're doing will eventually shape their conception of what the problem was. The solution will determine the problem, instead of the right way around.

L. Rust Hills
How to Do Things Right

When we doctors listen to the Planners in Congress and in HEW telling us what is wrong with American medical care and how they are going to help solve our problems, we can be forgiven if we doubt that the millennium has arrived. We may perhaps be forgiven if we throw up our hands in disgust, being unable to grasp in the welter of new legislative proposals, changing bureaucratic regulations, and partisan argument any evidence that the "solutions" are even slightly related to the problems.

Hard on the heels of the PSRO law, we now have a concerted effort by President Nixon and his epigoni to gain passage of a national health insurance proposal, called Comprehensive Health Insurance Plan (CHIP). It is held by media pundits that his reasons for strongly promoting this legislation are influenced by a desire to *do something* in the wake of the shambles of his crumbling post-Watergate administration. Representative Bill Roy supports this proposal also, making as *his* main case for it, that it may forestall other legislation that would be more detrimental to the interests of physicians. The Editor of the JOURNAL, Dr. Gray, whose prose is most beguiling, while not entirely happy with the PSRO concept urges physicians to avoid "an extreme of reaction" because "the profession stands to lose in any fight" against those promoting these legislative initiatives.

Most doctors I know never complain about battling disease out of fear that they might lose the battle. They know that the resistance of the host or the fearsome nature of the attacking organism sometimes overcome their best efforts, but the very nature of their commitment to the patient dictates that they do what is right

whether they succeed or not. To continue this analogy, I would like to suggest that the discomfort many of us feel from the "cures" from Washington is that they are based on misdiagnosis of the illness. Or more precisely, they are treatments proposed for "diseases" that do not even exist.

Misdiagnosis Number One is the belief that the public desires major changes in the way health care is provided or paid for. Curiously, many doctors have also accepted this fallacy. An exhaustive Harris Poll commissioned last year by Senator Muskie's committee showed that medical care rated almost at the bottom of public concerns, far outranked, interestingly, by such issues as honesty in government and inflation. These same respondents rated doctors highest in public regard, showing that we don't have all that much to be paranoid about. A local poll, conducted in Topeka by the Central Research Corporation for WIBW-TV, revealed fully 81 per cent of those polled were willing to state that they had *never failed* to receive "adequate and timely" medical care in Topeka. Now two polls don't necessarily determine the whole case, any more than one swallow makes the summer, but where is sound evidence to the contrary? Demand for change is mostly ideological, not scientific, and comes from liberal social planners in labor unions, university centers and, regrettably, government bureaus, and from numerous elected officials beholden to these constituencies.

Misdiagnosis Number Two is the notion that government can distribute medical care facilities more fairly, assure quality of care, and control cost better than the present private practice system. The public, fortunately, is being rapidly disabused of this notion by the natural course of bungling in Washington, a trend which has been accelerating in recent years. But many in government are still addicted to this belief. Steven Levi-son, M.D., writing in the *New England Journal of Medicine*, describes the true nature of Washington's involvement in health care as follows:

Literally hundreds of legislative authorities are invested in

HEW, each the product of a bill introduced for a worthy purpose, designed to improve the health of the nation, each floated on the rhetoric of reform and promise, inflating the expectations of the underserved, and ultimately enacted into law. Whereupon it becomes a program or agency with a large bureaucracy, organized constituency, independent policies, elaborate granting and regulatory procedures, an encrusted jargon, budget cycles, advisory groups, review processes, professional critics, oversight hearings, appropriations, etc., and in turn another concretion in the constipated bowel of the body public.

Doctors who recall their own terms of service in the military seldom point to that as a favorable example of quality medical care under government aegis. If there are those who *still* suppose that government can improve the quality of medical care, permit me to cite, as a recent example of How to Do Things Wrong, the Social Security Amendment of 1972, in which chiropractic services were included under Medicare and Medicaid, thus requiring taxpayers to support quackery. As the editor of *AMA News* puts it,

Inexplicably, the same Congress that opened the Medicare-Medicaid doors to chiropractic coverage imposed upon the medical profession the disagreeable Professional Standards Review Organization law—in the name of ensuring better quality of care for the program's recipients.

The amusing idea that government control of medicine can control costs can be put to rest by mentioning that a visit to a VA Hospital outpatient clinic costs \$39.50. An OEO neighborhood clinic visit costs from \$40 to \$300. The cost of operating PSRO is unknown, in keeping with the untried nature of the proposal, but it is significant that the Nixon budget for 1975 includes \$58 million for it, on top of \$34 million extra already committed for the last part of 1974. This is to help *us* control costs!

Misdiagnosis Number Three in this dreary litany is the idea promoted by advocates of "reasonableness" on the part of doctors, that if we don't support current proposals for national health insurance, such as CHIP, we will get something far worse. "We" in this context being the doctors, since we are presumed to be threatened by an attack on our pocketbooks by these unnamed "worse" proposals. Amazingly enough, Ralph Nader responds best to this attitude. According to a *New York Times* report of a Nader speech,

He also called on the entire medical profession to represent the public in matters of health policy, not just to treat patients' illnesses.

Precisely. Doctors have nothing economically to fear from the legislative proposals I have mentioned; in fact, we will make *more* money than ever as the "worried well" and other non-sick individuals clog up the health

care pipeline—but the *public will suffer*, in both the pocketbook and in the quality of health care they receive. By adopting a "you have to go along to get along" attitude, physicians will not serve the public's need to know. Further, the politicians, having succeeded in co-opting the support of the doctors for their schemes, will not hesitate to blame us for the failure of a "treatment" that was wrong in the first place. And we will be guilty if we help start programs which are doomed to be ineffective. A far better moral stance is to strive mightily to tell the public in advance what is in store for it; not to beg crumbs from politicians in return for supporting plans which will fail. It is a small matter whether we succeed in stopping the trend or not, as long as the record shows we are not to blame for it.

For those of you who do not find these arguments totally persuasive, let me suggest that you ask yourself this question: Do you believe that the same people who gave you Vietnam, Inflation, the Energy Crisis, the Russian Wheat Deal, the Postal Service, and PSRO are going to give you a workable, inexpensive, fair, and successful medical care system through National Health Insurance? If not, do your patients and the public in general deserved service, and tell them so.

Vox Dox

Vox Dox Editor:

I am currently editing a book on the personal testimonies of Christian physicians and how they view the current medical-ethical issues of today, *i.e.*, abortion, euthanasia, organ transplants, when is a person officially dead, sterilization, psycho-surgery, semen donors, ovum donors, host mothers, reversed aging, artificial organs, genetic counseling, etc. I would be interested in hearing from any Christian physician who would be interested in contributing to such a book or who would be able to suggest a Christian physician to write for this book. Please contact me at the following address:

CLAUDE A. FRAZIER, M.D.
4-C Doctor's Park
Asheville, N. C. 28801



WILLIAM McKINNEY, M.D.

Dr. William McKinney, of Baxter Springs, died March 1, 1974 at the age of 93. He was born January 1, 1881, in Lowell.

Dr. McKinney was graduated from the University College of Medicine, Kansas City, in 1911. He established his medical practice in Baxter Springs in 1921, where he practiced until his retirement in 1966.

Survivors include a son and three daughters. Memorial contributions may be made to the Baxter Memorial Hospital.

JOHN W. RANDELL, M.D.

Dr. John W. Randell, 82, of Marysville, died January 1, 1974. He was born March 31, 1891, in Aurora, Indiana.

Dr. Randell was graduated from the University of Louisville School of Medicine in 1916. He practiced medicine in Marysville beginning 1917.

Surviving Dr. Randell are four daughters. A memorial education fund has been established.

DONALD SELZER, M.D.

Dr. Donald Selzer, 50, of Topeka, died January 18, 1974. He was born July 8, 1923, in Baldwin.

Dr. Selzer was graduated from the University of Kansas School of Medicine in 1947. He had practiced surgery in Topeka since 1959.

Survivors include his wife, two sons, and five daughters. A memorial fund has been established with the Cancer Society.

Woman's Auxiliary



Key Changes

With the need for community rapport, better information and orientation for our state chairmen and leaders, the National Auxiliary's Board of Directors, with guidance by the President-Elect, has made some changes in the health education and health services areas of the program extension committees.

Within the present state framework, our health education chairman has been assisted by sub-chairmen of committees on Community Health & Nutrition, Ecology, Mental Health, and Aging & Homebound. Health services included blood donor programs, hospital day care centers, and sub-chairmen in the areas of safety and GEMS (Good Emergency Mother Substitutes), children and youth, and a separate Health Manpower Committee, within the Auxiliary Activities Division.

Though Health Manpower has been somewhat de-emphasized within the last few months, there will always be a need for dedicated, patient-oriented personnel, in all the careers for the health needs of our communities. Kansas is fortunate in having such a fine variety of excellent training programs in almost all areas; you know this better than we. But there has been a special way the Auxiliary has to call attention to those programs here in Kansas, and the kinds of careers offered. That is our Health Careers Bus, the "Her Van" . . . our yellow bus that visits communities across the state, and well received She is! This fall, She was booked in the western section of the state, and now, She is already scheduled for a return to the eastern counties. The Kansas Health Museum still provides the scheduling system, and our own bus advisor assists in Halstead. With several groups contributing, and their displays selling the respective careers to the young public, She will continue to be "a going attraction" for the schools, grade through Vo-Tech. The Kansas Medical Society is still the largest contributor, with the Auxiliary credited as owner!

But, because the National Auxiliary is aware of the involvement in both health education and services (community involvement), the leadership is planning to divide those two areas into three committees. The Health Education Committee will have a new emphasis in working with school boards and other community agencies to provide better curricula and teaching methods in the schools, pursuing ways to provide variety in adult health programs and stronger impact with media education.

The committees on Family Health and Community Health will replace the committees working presently in phases of health projects or programs for the health needs of the community. Health education and programs for the individual family unit will be directed by the Committee on Family Health, and the community services and education programs by the Community Health Committee. The Health Manpower Committee seems best suited to Health Education Committee, since its objective is to encourage interest in education for the many careers in health.

These areas of program at the national level will be emphasized at the fall workshops (national regional) next October and throughout the year. I'm sure my successor, Dot Meyer, will want to continue this fine communication opportunity, our JOURNAL column, and she will keep you abreast of her committee projects. We are grateful for this chance to help you understand what your "Right Arm" is doing.

Katie Keys

P.S. Due to a stenographic oversight, the name of our first financial supporter of the Conference on the Young Family, '74—Munns Medical Supply Co., Inc.—was deleted from the list of contributors . . . our apologies; we are indebted to Munns, as they gave us encouragement when we needed it most!

Medical-Legal Page

Obstetrician Sued for Injuries From Forceps Delivery

A directed verdict for an obstetrician was error where there was sufficient evidence that a breach of the standard of care caused injuries to an infant during delivery, the Florida Supreme Court ruled.

A woman brought action for malpractice against the obstetrician, contending that he negligently and carelessly used forceps in delivering her baby, causing severe head and brain injuries. She contended that the obstetrician's negligence and unskilled medical practice were below the standard of care of obstetricians practicing in the area.

The obstetrician denied negligence, and the trial court directed a verdict for him. On appeal, the court affirmed the directed verdict, stating that the woman did not make a prima facie case on the question of proximate causation.

On review of the case, the state supreme court said that in order to present a prima facie case of malpractice a patient must establish that a standard of care was owed by the obstetrician to the patient, that there was a breach of that standard, and that such breach proximately caused the injuries claimed.

At the trial a physician testified that use of Tucker-McLane forceps on the baby's head, which was "considerably molded" (elongated) during a mid-forceps delivery was a departure from the acceptable standard of care in the area. The obstetrician contended that such testimony was insufficient, since the physician had testified that the forceps had slipped, while the obstetrician testified that there was no slipping of the forceps. The court found that the question of whether the forceps slipped was debatable and that the opposing viewpoints were for the jury's consideration.

As to the element of proximate causation, the court pointed out that the physician testified that in his opinion the cause of the infant's injuries was the traumatic or injurious use of forceps in delivery. Although there was contrary medical evidence that the injuries might have been caused by trauma or by a troublesome trip down the birth canal, the court said that the physician's testimony made a prima facie case on the issue of causation.

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Finding that the trial court erred in directing a verdict for the obstetrician and the appellate court erred in affirming it, the court quashed the opinion and sent the case back with instructions for a new trial.—*Wade v. Barnes*, 278 So.2d 601 (Fla.Sup.Ct., May 9, 1973; rehearing denied, June 26, 1973)

Editor's Note: A prior decision was reported in *The Citation*, Vol. 25, No. 9, p. 129.

Expert Testimony Not Needed to Find Hospital Negligent

In a malpractice action against a hospital, the Kansas Supreme Court held that expert testimony was not required to establish a hospital's negligence in failing to obtain medical attention for a patient during a 10½ hour period, where the patient made repeated requests for a physician and was apprehensive and in severe pain.

The patient entered the hospital because of "an acute gallstone condition." After a successful operation, he recuperated nicely for two weeks. On the day before he was to be discharged, at 11 AM, the surgeon removed a T-tube that had been providing drainage, watched for a few minutes to see if there was bile drainage, and left when he was satisfied with the result. The patient did not complain of pain in the surgeon's presence.

The patient experienced pain shortly after the surgeon left. The nurses on duty were unable to locate the surgeon but reached his partner and secured an order to administer a pain-relieving drug. By lunch time, the patient had so much pain in his right arm that he had to eat with his left hand. By 2 PM he was vomiting and by 3 PM complaining of blood in the vomitus.

The pain continued, and the patient made frequent complaints, repeatedly asked for a physician, and at one point asked for a priest. The nurses made no effort to notify the surgeon after their original call at 11:10 AM. The patient repeatedly asked to be catheterized because of inability to void his bladder, but to no avail.

When the surgeon next saw the patient, on his evening rounds at 9:30 PM, he immediately diagnosed the problem as acute gastric dilation, or distention of the stomach. He removed about 1,000 cc. of dark material with use of a stomach pump. Catheterization produced 250-300 cc. of dark urine.

The surgeon ordered intravenous fluids and a broad-spectrum antibiotic as a precaution, although he doubted that there was any organic disease present. Four days later, a diagnosis of pneumonia in the right lung

was made, requiring further surgery and 27 additional days of hospitalization. The surgeon speculated that a collapse of a portion of the patient's lung might have been the result of his failure to breathe deeply because of pain.

The patient brought action against the surgeon and the hospital, seeking to recover damages for physical and mental pain and suffering, expenses of his prolonged hospital stay, and loss of income. He contended that the surgeon had improperly removed the T-tube by jerking it, failed to attend or to arrange for other medical attendance during the crucial 10½ hours, and failed to instruct the nurses properly as to their duties. As to the hospital, he contended, among other things, that it failed to notify the surgeon or obtain other medical attendance during the period when his condition was deteriorating.

The trial court directed a verdict in favor of the surgeon and the hospital. The court found that, to establish negligence, evidence was required as to the standards of care and a showing must be made that the physician or hospital or both departed from the standards in treatment of the patient.

Expert testimony is not required for things that any layman could see and understand. However, the trial court said that in the present case there were things that were not well known or obvious to the layman and that the patient's evidence failed to establish actionable negligence against either party.

On appeal, the court pointed out that the closest the patient came to establishing any standard of care was introduction of medical texts tending to establish the proper method of withdrawing a T-tube and proper

treatment of acute dilation of the stomach. There was nothing to indicate that the surgeon had actually been negligent.

There also was nothing to show that the surgeon was negligent in leaving an apparently healthy patient in the care of nurses from 11 AM until 9:30 PM. The appellate court found that the trial court properly directed a verdict in the surgeon's favor, since there was no evidence to establish actionable negligence on his part.

However, as to the failure of the nurses to locate the surgeon, the appellate court said that the jury could have concluded that the 11:10 AM call was the only effort made to obtain medical attention for the patient during the period in question. The court said that even a layman could justifiably find such effort inadequate where the patient's condition was deteriorating to the point where the surgeon found his condition "critical" when he next saw him.

The court stated that expert testimony was not necessary to establish that a hospital exercising ordinary skill, care, and diligence would have located a physician to attend the patient. The patient would be entitled to recover for at least mental anguish if the hospital had a duty to call a physician, the court said.

Holding that the jury could have found that the hospital had a duty to find another physician if the surgeon could not be reached, the court said it was error to direct a verdict for the hospital. The court affirmed the judgment as to the physician and reversed it as to the hospital, with directions to grant a new trial.—*Karrigan v. Nazareth Convent & Academy, Inc.*, 510 P.2d 190 (Kan.Sup.Ct., May 12, 1973)

AWARD MANUSCRIPTS SOLICITED

The American Academy of Orthopaedic Surgeons has announced that entries of manuscripts are being accepted for the 1975 Kappa Delta Awards in orthopedic research. Three awards will be given of \$2,000 each, providing that manuscripts of requisite quality are submitted, for outstanding research in the field of orthopedic surgery from United States citizens.

Categories are: Basic research that relates to the musculoskeletal system, clinical research in orthopedic surgery, and problems related to trauma of the musculoskeletal system.

Papers to receive the awards will be selected during the current year for presentation at the Academy's Annual Meeting March 1-6, 1975, in San Francisco.

Submission deadline is July 15, 1974, and applicants should submit six copies of manuscripts to Kappa Delta Awards, Advisory Committee on Research, American Academy of Orthopaedic Surgeons, 430 N. Michigan Avenue, Chicago 60611.

Month in Washington

The American Medical Association has announced the filing of a lawsuit against the Cost of Living Council to seek an end to all economic controls on medicine.

At a news conference in the AMA-Washington office, the organization disclosed that it is seeking an injunction against the Phase IV regulations on physicians and hospitals. It charged that the rules are "confiscatory, arbitrary and capricious," that they violate the "generally fair and equitable" standard established by Congress, and that they violate the fifth amendment of the U. S. Constitution.

Announcement of the legal action was made by Russell B. Roth, M.D., President of the AMA, and James H. Sammons, M.D., Chairman of the AMA Board of Trustees.

In its complaint stating its legal action, the AMA pointed out that the Phase IV regulations represent an "attempt to mold the health care delivery system to comport with the CLC's concepts for health care," and are specifically designed "to curb the quantity and quality of health care services as an integral part of the legislative program to induce Congress to enact national health insurance."

The AMA asked that the court declare these Phase IV regulations invalid and enjoin the Cost of Living Council from enforcing them.

One day after the AMA filed its suit against the Cost of Living Council, President Nixon reaffirmed the Administration's intention to keep cost controls on hospitals and physicians until a national health insurance program is approved.

In a second message on health submitted to Congress, the President also emphasized a shift in policy on health education from operating subsidies to direct assistance to students. Nixon said, "The nation's total supply of health professionals is becoming sufficient to meet our needs during the next decade. In fact, oversupply in the aggregate could possibly become a problem."

On controlling health costs, the president said "we must avoid the cost inflation which followed the introduction of Medicare and Medicaid. Our health insurance proposal would call for states to oversee the operation of insurance carriers and establish sound procedure for cost control. Until these or other controls are in place, I recommend that our present authorities to

control health care costs be continued. I am asking the Congress for such authority." Inflationary pressures are still strong in the medical field, he said, "so that we must maintain federal controls until other measures are adopted under comprehensive health insurance."

Shortly after an AMA delegation met separately with President Nixon and HEW Secretary Caspar Weinberger, the latter announced he would drop the hotly contested proposed regulations that would have required pre-admission certification for the hospitalization of Medicare and Medicaid patients.

The President had assured the AMA delegation earlier in the day that serious consideration would be given to changing the controversial pre-admission certification plan.

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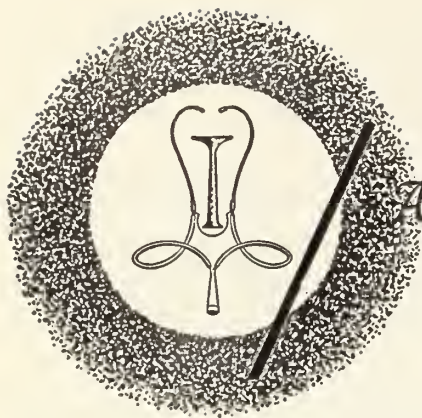
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Announcements

Professional meetings, conferences, and postgraduate courses of national importance are listed for the Doctor's CALENDAR. Notice of the session is posted in advance to allow the physician time to make preparations.

APRIL

- Apr. 20 Ellis County Spring Meeting, Hays. For details, see page 36, February, 1974.
- Apr. 22-25 American Academy of Pediatrics spring meeting, Americana Hotel, Bal Harbour, Florida. Write: R. G. Frazier, M.D., 1801 Hinman, Evanston, Illinois 60204.
- Apr. 22-26 Clinical Anesthesiology for General Practitioners, Oklahoma City. Write: Oklahoma U. Health Sciences Center, PO Box 26901, Oklahoma City, Oklahoma 73190.
- Apr. 29 American College of Obstetricians and Gynecologists Annual Clinical Meeting, Las Vegas. Write: D. F. Richardson, ACOG, 1 East Wacker, Chicago 60601.
- Apr. 30 American Gastroenterological Association, "Peptic Ulcer Disease" Postgraduate Course, San Francisco Hilton. Write: AGA, 6900 Grove, Thorofare, New Jersey 08086.

MAY

- May 1-3 American Surgical Association, Colorado Springs. Write: G. T. Shires, M.D., 5323 Harry Hines Blvd., Dallas 75235.
- May 3-5 American Society of Internal Medicine, San Francisco. Write: W. R. Ramsey, 525 Hearst Bldg., San Francisco 94103.
- May 4 *Current Concepts in Thyroid Disease*, 3rd annual thyroid symposium, Colorado Springs. Write: F. R. Gydesen, M.D., 2215 N. Cascade, Colorado Springs 80907.
- May 5-8 Kansas Medical Society 115th Annual Session, Ramada Inn, Topeka.
- May 6-10 American Psychiatric Association, Detroit. Write: W. E. Barton, M.D., 1700 18th St. NW, Washington, D. C. 20009.
- May 16-18 Oklahoma State Medical Association annual meeting, Skirvin Hotel, Oklahoma City. Write: Mr. Don Blair, 601 NW Expressway, Oklahoma City 73118.

May 23-25

American Gynecological Society, Homestead, Hot Springs, Va. Write: T. N. Evans, M.D., 275 E. Hancock, Detroit 48201.

JUNE

- June 5-9 Mid-Central States Orthopaedic Society 21st annual meeting, Jackson Lake Lodge, Wyoming. Write: MCSOS, 2 Sequoia, Wichita 67206.
- June 6-7 American College of Surgeons, Hilton Inn, Tulsa: "Management of Life-Threatening Problems in the Emergency Department." Write: Oklahoma Trauma Research Society, 6465 S. Yale, Tulsa 74136.
- June 23-27 American Medical Association annual convention, Chicago.

JULY

- July 7-12 12th International Congress on Diseases of the Chest, Royal Festival Hall, London, England. Write: American College of Chest Physicians, 112 E. Chestnut, Chicago 60611.
- July 22-24 American Electroencephalographic Society, Seattle: "Current Practice of Clinical Electroencephalography." Write: D. W. Klass, M.D., Mayo Clinic, Rochester, Minn. 55901.

University of Kansas:

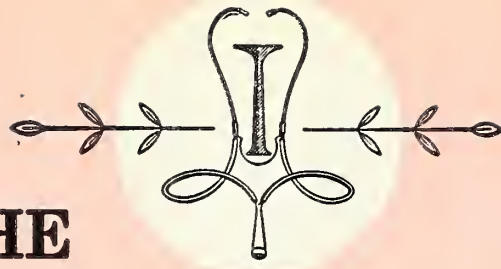
- Apr. 15-17 *Ophthalmology: Orbital Diseases*
 Apr. 26 *Infections Diseases*
 May 13-16 *Basic Electrocardiography*

For further information, write the Department of Postgraduate Medical Education, KUMC, Kansas City, Kansas 66103.

University of Colorado:

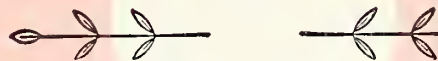
- Apr. 17-19 *Pulmonary Medicine*
 June 10-15 *Family Practice Review*

For further information, write the Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver 80220.



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orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

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vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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The JOURNAL of the KANSAS MEDICAL SOCIETY

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SURGEON TO SOLDIERS, Edward D. Churchill, J. B. Lippincott Co., Philadelphia. 1973. 490 pages illustrated. \$12.00.

Dr. Churchill has here related, in a brief form, his experiences as the surgical consultant for the North African-Mediterranean Theater in World War II. Problems were soon evident, starting with the confusion in determining the duties and status of a consultant, and his relationship to the various units of the Army. It goes without saying that the consultants were men of recognized professional stature, or they would not have been selected, but they also needed a great deal of patience, tact, and the ability to cooperate with others while leading them, rather than to merely direct them. The selection of Dr. Churchill for this position, it was soon obvious, was a wise one.

He relates the surgical experiences of the North African-Mediterranean Theater as recorded through his diary and notes, excerpts from the diaries of others, and his experiences in meeting and talking with surgeons at all levels of casualty care. Many personal experiences are included, and names of units and individuals are freely used. This adds a great deal to the interest-holding ability of the book—at least for one who was in that area, and knew many of the people and places named.

Described are Dr. Churchill's efforts to bring reason and order into the care of burns and of shock, the use of whole blood instead of relying exclusively on plasma, the use (and abuse) of sulfonamides and penicillin, the locations for various surgical facilities (principally moving surgical units farther forward), triage of casualties, pre- and post-operative care, the management of soft tissue wounds and compound fractures, secondary wound closures, and so on. The accounts are so vivid that it reads like a novel, transporting the reader back to a recollection of his own related experiences, and a re-living of some of those days.

This is an excellent description of the activities of a surgical consultant, and shows clearly how useful such

a person can be in promoting useful practices and discouraging those of less value, if he is the right man for the job. That Dr. Churchill was the right man for the job is well recognized, and having been in one of the units which he visited on more than one occasion (Second Auxiliary Surgical Group) and seen him "in action," this reviewer can attest to the efficiency of his assistance and the value of his visits to those doing the casualty surgery. This aspect cannot be better described than to quote from a report written by Dr. Bentley Colcock on surgery of the bowel (which is included in one of the appendixes of this book):

"North Africa—It was night, and the tiny electric bulb barely lighted the small plastered room which was part of the Commanding Officer's quarters. The several tired medical officers sat down on whatever chairs and boxes that were available. Their mind was on their visitor—the Surgical Consultant for the North African-Mediterranean Theater. Elsewhere a surgical consultant, on his infrequent visits, had told them all the things that were wrong with the hospital and their work. He told them so in a loud voice and he had no time to listen to explanations. They knew that many things they did were not according to War Department policy, but War Department policy, frequently, just didn't work under actual field conditions. They were new to this business (and so was he) and they knew it. After all, it was a new war. This was North Africa in 1943. Nothing in the books that were available had much bearing on what they were faced with from day to day.

"In a quiet voice, the visiting colonel turned to the head of the Orthopedic Section on his left, and said: 'What are your problems?' So it went, from one man to the next, till each had a chance to voice his frustrations and to report his few successes. The major in charge of abdominal surgery was enthusiastic about the policy of exteriorizing all wounds of the colon, but all too often the colostomies that had been done, retracted. This had led to wound sepsis, dehiscence and abdominal abscesses. With each man in turn, the consultant

would listen until he was finished, ask for his suggestions, and then discuss the problem until there was agreement. When the meeting broke up late that evening, each officer went back to his work with more peace of mind than he had known for many weeks."

And further on, writing in tribute to the work of the surgeons in the North African-Mediterranean Theater, he added that they were never allowed "... to be hamstrung by rules and regulations. They were encouraged to think. If it would help the patient, and it was based on sound principles, they would not be criticized for trying. They took pride in their work. They knew their surgical colleagues were 'the pick of the crop.' Most important of all, they took pride in their chief—the senior Surgical Consultant of the North African-Mediterranean Theater, Colonel Edward D. Churchill. Without him, they would have been a group of highly-trained temperamental individualists—the 'prima donnas' of the U. S. Army Medical Corps. With him, they became a close-knit band of dedicated surgeons, inspired by the conviction that they were providing the finest surgical care the American soldier had ever received."

This reviewer enjoyed the book from start to finish, and recommends it with no reservations, particularly to any who served in the North African-Mediterranean Theater, as they will find interesting references to fa-

miliar units and people. While not written primarily as a surgical text, there is, none-the-less, considerable good surgical advice included—advice based on the actual experiences in a large military theater, and some of these lessons are also applicable to civilian surgery, as has been demonstrated in the years since conclusion of that conflict. Dr. Churchill's contribution to the care of wounded soldiers was monumental, and it is fitting that some of his experiences be related in this fashion for widespread reading, rather than buried in a mass of official reports.

(Dr. Churchill's thoroughness and fairness were evident to me again a year or two later, when he was one of the pair questioning me in the oral part of the examination for the American Board of Surgery. The second examiner liked "trick" questions, but I soon learned that while Dr. Churchill's questions were usually searching, they were fair and legitimate, and provided an opportunity for reasoning rather than being totally dependent on remembering an isolated statement in a single article. My admiration and respect for him were further secured on that occasion. He would not have known me, then or now, but I shall always remember and admire him as one of the master surgeons and teachers of this period. The book is a fitting work of such a man.)—O.R.C.

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Glioblastoma Multiforme

With Remote Extracranial Metastases

RICHARD P. JOHNSON, M.D.* *and*

RAMON A. GUILLAN, M.D., F.C.A.P., F.A.C.P.,† *Topeka*

REMOTE EXTRACRANIAL METASTASES occurring from primary brain tumors of neuroectodermal origin are now well documented and accepted, but their occurrence is still relatively rare. This is especially true in the case of glioblastoma multiforme, to which this discussion will be limited.

In two series dealing with the extracranial metastases of intracranial tumors, 89 cases were reviewed by Glasauer and Yuan,¹ of which 16 were glioblastoma multiforme; and 23 of the 35 cases reported by Smith² in a series in which 8,000 tumors of neuroectodermal origin were reviewed. Additional 14 cases have appeared in the literature and have been summarized by Komatsu.³ Our case would, therefore, bring the number of reported cases to 54, which speaks well for the infrequency of such cases and the need to report them when they are encountered.

Case Report

1st Admission: The patient, a 46-year-old white male, was first seen in another hospital in April 1967, at which time he presented with a history of left-sided Jacksonian seizures beginning in the hand and face and becoming generalized without loss of consciousness. At this time, physical and neurological examinations were normal, and pneumoencephalogram and carotid arteriogram were also interpreted as normal. The patient was discharged after his seizures had been controlled medically.

2nd Admission: The patient was readmitted in May 1968, with a history of burning paresthesia in the left face of one year's duration, and a four-week history of

A well-documented case of glioblastoma multiforme with remote extracranial metastases to lung, hilar nodes, and liver is presented.

The salient features contributing to the development of such metastatic spread, such as surgical intervention and prolonged survival time, are discussed.

burning pain in the left upper extremity. He had experienced no further seizures. Neurological examination on this admission revealed an absent left corneal reflex, decreased sensation on the left side of the face, left upper chest, and left upper extremity. He also had weakness in the left upper extremity. A right selective carotid arteriogram was performed and demonstrated a right parietal tumor mass. On May 21, 1968, a right occipitoparietal craniotomy was performed, revealing a multicystic tumor. The tumor mass was biopsied only, and the patient was subsequently treated with 500 rads in radiation therapy to the entire brain. The biopsy diagnosis was Grade II astrocytoma. The patient recovered well and was discharged.

3rd Admission: The patient noted the onset of lethargy, drowsiness, and gradually increasing weakness

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of the left side. He also complained of severe headaches and mental confusion. He denied visual symptoms. He was readmitted for the third time on October 29, 1969. On examination, the patient was oriented but drowsy. Cranial nerve examination revealed a dense left homonymous hemianopsia, weakness of motor function of the left 5th cranial nerve, and decreased corneal reflex on the left. There was left 7th nerve weakness, palatal deviation to the right, and left 12th nerve weakness. His gait was paretic on the left side, and muscle evaluation did reveal a mild left hemiparesis. The left side was extinct on double simultaneous stimulation and demonstrated hyperesthesia to pin prick. Position sense was diminished on the left, as was two-point discrimination and stereognosis. On admission, laboratory studies on complete blood count, urine analysis, fasting blood sugar, BUN, creatinine, and electrolytes were normal. Chest film was normal. X-rays of the skull disclosed a shift toward the left with pineal displacement. Pneumoencephalogram demonstrated a large mass in the right parietal area, and carotid arteriogram showed what appeared to be a large infiltrating tumor in the parietal area extending toward the frontal area with much A-V shunting. EEG was abnormal, showing a constant moderate amplitude slow wave from the entire right cerebral hemisphere. Spinal fluid cytology was Class I.

On November 12, 1969, a right frontoparietal craniotomy was performed and gross total excision of the tumor was accomplished. The histology was that of glioblastoma multiforme. Quadrant biopsies were done of the tumor bed, and were negative for tumor. Post-operatively, no further radiation was given. The patient was transferred to this hospital on February 26, 1970, with a residual dense left hemiplegia and left homonymous hemianopsia, in addition to being lethargic. On admission, an echoencephalogram and skull x-rays did not reveal any conclusive pineal shift, and chest x-ray was unremarkable. By April 1970, the patient exhibited



Figure 2. Tumor metastasis to lungs showing involvement of and extension through pleural surface.

progressively severe confusion and drowsiness. He presented evidence of elevation of the right craniotomy flap, and several nodules were present around the surgical scar. He had marked papilledema. The patient developed a pneumonia which was resistant to therapy, and he continued in a semi-comatose condition until he expired on May 10, 1970.

Autopsy Results

A complete autopsy was performed and all organs carefully examined grossly and microscopically in a search for a possible second primary tumor. The findings of significance were limited to the brain, lungs, liver, and hilar nodes.

The gross weight of the formalin-fixed brain was 1,400 gm. There was gross edema and evidence of swelling throughout the entire brain. The pia and the arachnoid were completely adherent to a large tumor mass, which was very extensive and had replaced almost the entire right side of the brain. The tumor extended outward from the parietal surface on the right onto the inner surfaces of the skull in the parietal and temporal



Figure 1. Coronal sections of brain.



Figure 3. Metastatic spread to liver.

areas. This tumor had involved the scalp also, and had penetrated deeper into the mastoid. The tumor extended from the surface of the frontal lobe, about 1 cm from the anterior tip down the whole of the frontal, parietal, temporal and occipital surfaces, and into the thalamus and lateral ventricle on the right side. The tumor replaced the caudate and gray matter nuclei of the base of the brain right up to the occipital pole. Just at the superior margin of the pre- and postcentral area, there was a $1 \times \frac{1}{2}$ cm hemorrhagic cavity. There was seeding of tumor tissue apparent at the level of the pons on the left side, both near the vermis and in the left cerebellar hemisphere. The architecture of the cerebellar hemispheres was, however, fairly well preserved, unlike that of the right cerebral cortex which was almost entirely destroyed by tumor (*Figure 1*). The tumor itself was grossly necrotic and hemorrhagic throughout all areas. There was tentorial herniation, with markings on the medial surface of the brain at the level of the peduncles and midbrain.

On examination of the lungs, there were found to be some scattered, rounded, indurated areas in the upper and lower lobes on both sides. Sections through these areas disclosed tumor nodules which were well demarcated and whitish in color, soft, and showing central hemorrhagic areas (*Figure 2*). The largest of these measured 1.8 cm in diameter, and the smallest one about 0.5 cm. There were five metastases contained in both lungs. Hilar nodes on the right and the left were invaded by tumor and were markedly enlarged, especially on the right, where one node measured $6 \times 3 \times 2$ cm. It also was white in color with a large, central hemorrhagic area. Fibrinous pleuritis was also observed in the lungs.

The liver showed numerous (19 in all) scattered metastases which were also whitish in color, well demarcated, and measuring between 0.5 and 3 cm in diameter (*Figure 3*). The largest of these was similarly

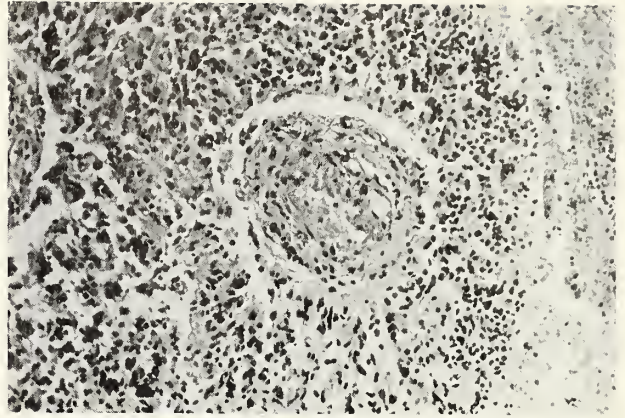


Figure 5. Endothelial proliferation in primary tumor (H & E $\times 125$).

hemorrhagic, soft, and friable. The remaining organs disclosed no gross diagnostic abnormality.

Sections of the primary tumor in the brain disclosed essentially similar changes. There was massive destruction by tumor of brain parenchyma, and extensive areas of hemorrhage and necrosis. The neoplastic cells were quite pleomorphic, varying from round or polyhedral in some areas to the elongated, surrounding blood vessels, hemorrhage, and areas of necrosis. The cytoplasm was scant. The nuclei were basophilic, in some cells quite hyperchromatic, but in most cells having a foamy, reticular appearance. Most characteristic in all sections was the tendency of the tumor cells toward pseudo-palisading around areas of hemorrhage and necrosis, and the formation of pseudo-rosettes around blood vessels (*Figure 4*). Endothelial proliferation was moderate in some areas, but quite marked in others (*Figure 5*). Glial processes were readily visible in most areas.

Sections of the lung, liver, and hilar nodes all disclosed a similar histologic pattern. In these sections, as in the primary tumor, there were extensive areas of

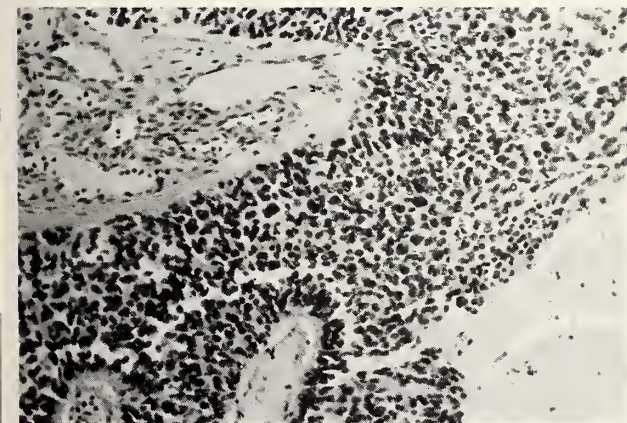


Figure 4. Representative section through primary tumor (H & E $\times 125$).

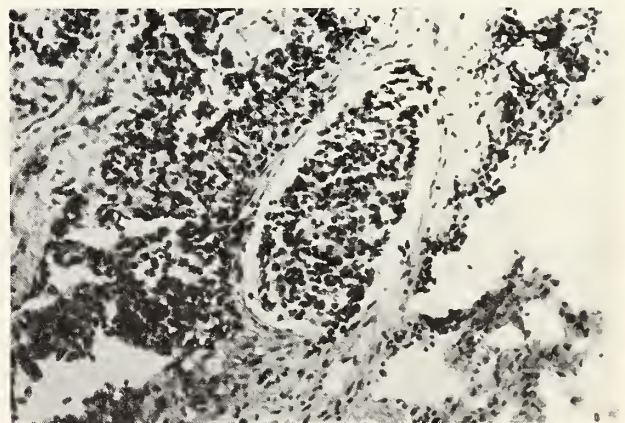


Figure 6. Section through lung tumor embolus (H & E $\times 125$).

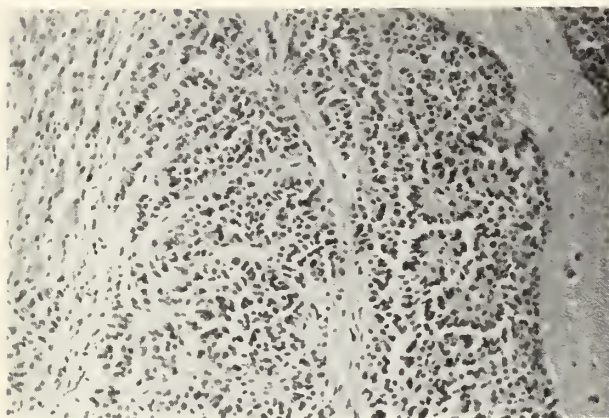


Figure 7. Compressed hepatic parenchyma in upper left portion of the field and metastatic tumor (H & E x 125).

necrosis within the tumor mass which were surrounded by glial cells with a tendency toward pseudo-palisading, and pseudo-rosette formation around blood vessels (Figure 6). Large tumor emboli were visible, which nearly occluded the lumina of the medium-sized pulmonary vessels (Figure 7). In the hilar node metastasis, only a thin shell of lymphoid tissue remained.

Comments

The rarity of extracranial metastases with glioblastomas is still poorly understood considering that these tumors are among the most malignant encountered. Various factors have been cited by numerous authors to explain this, including the absence of cerebral lymphatics;⁴ early occlusion of venous channels by tumor compression because cerebral veins are so thin-walled;⁵ immune response to the tumor cells by other organs and short postoperative life span of these patients. However, it has now been shown that gliomas experimentally implanted at other body sites will continue to grow.⁶

From all the previous literature, what is striking is the fact that surgical intervention is almost a prerequisite for the extracranial metastases of these tumors.

Only in the cases reported by Rubinstein⁷ and Anzil⁸ was the natural course of the tumor not interrupted by surgical intervention. Also of interest is the recognition that tumor cells are definitely released into the systemic circulation during surgery.⁹ In our case, there was clear evidence of hematogenous spread as evidenced by tumor emboli within the lung. It is unlikely that this would have occurred were not previously inaccessible vascular routes from scalp and dura opened during surgery. It cannot be overlooked, however, that our patient survived nearly 24 months from the time of the initial surgical procedure, as compared to the mean postoperative survival of 18 months reported by Smith² in his series, and 35 months after the onset of symptoms. This might very well have been a significant contributing factor to the development of extracranial metastases.

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Nurse Practitioner

Health Services

MARTHA U. BARNARD, M.N.* and

EDWARD C. DEFOE, M.D.,† *Kansas City, Kansas*

POLITICALLY EXPEDIENT phraseology, research, education, and service preoccupation with cause of death, limited attention to the broad health service needs of the population, escalating costs, and high-level social frustration are significant features of our modern health services apparatus.

In support of a quarantine bill, during the yellow fever epidemic of 1796, William Lyman, Congressman for Massachusetts said, "The right to preservation of health is inalienable."¹ Presumably, Lyman's definition of health pertained to freedom from yellow fever. Since that time, the word "health" has been bandied about on the altar of political expediency without precise definition. In the 1960's, the "right to health" was pushed. Presumably the definition of "right to health" was the right of access to medical disease care. Whatever the definition, such statements have contributed to unrealistic social expectations and demand.

To better understand the basis of our health services dilemma, it is useful to look at the three leading causes of death for 1900, 1940 and 1970, the changes in life expectancy during this period, and the spectrum of health service needs of a sample modern population. Aside from a slight increase in diseases of the heart, cancer and intracranial lesions of vascular origin, and a moderate decrease in deaths of infectious origin, there has been no significant change in the leading causes of death between 1940 and 1970.²

1900

1. Pneumonia and influenza
2. Tuberculosis
3. Diarrhea, enteritis and ulceration of the intestines

1940

1. Diseases of the heart
2. Cancer
3. Intracranial lesions of vascular origin

1970

1. Diseases of the heart
2. Cancer
3. Intracranial lesions of vascular origin

In addition, in spite of large dollar and energy expenditure directed to research and education in death postponement, little progress has been made in increasing the life expectancy of adults. An adult who had reached 65 in 1900, could expect to live another 13 years. An adult who had reached 65 in 1970, could expect to live another 15 years, or only two years longer

It is the purpose of this paper to outline the potential role of the nurse practitioner and the manner in which she (he) can, in part, contribute to the resolution of the "health care crisis."

than in 1900. The 23-year increase in life expectancy from birth gained between 1900 and 1970, is associated mainly with a great reduction in infant mortality. In contrast, it is interesting to look at the spectrum of health service needs of a typical population group of 2,500, served by a primary care physician within the outskirts of London.³ Of the 2,140 patients seen during a year, 80 per cent had minor episodic problems (34% minor medical disease, 12% minor psycho-social illness, and 34% a mixture of the two); 17 per cent had chronic problems (6% chronic medical disease, 3% chronic psycho-social illness, and 8% a mixture of the two); and 3 per cent had major medical disease problems (such as pneumonia, acute bronchitis, coronary heart disease, and acute appendicitis). There were two new cases of cancer in the population during the year. In other words, 91 per cent of the patients seen had minor episodic problems or chronic problems with a highly significant psycho-social illness component. Leading cause of death has little relevance to the needs of the overwhelming majority of patients served. Although the sample cited is from England, the data is applicable to similar populations in this country.

Preliminary estimates indicate the total spending for health in the United States reached \$94.1 billion in fiscal 1973.⁴ Per capita expenditures amounted to \$441, an increase of \$41 over the previous year's figure and

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an increase of \$149 over fiscal 1969. Approximately half, \$46.4 billion, of the total expenditures was for hospital care, nursing home care, and research and medical facilities construction. Eighteen billion dollars was expended for physician services, \$5.4 billion for dental services, and \$8.8 billion for drugs. The increase in expenditures from 1972 was just short of \$4 billion for hospital care, \$1.4 billion for physician services and approximately \$600 million for drugs. Expenditures for prepayment and administration increased from \$3.6 billion in 1972, to \$4.2 billion in 1973. For whatever solace this may be, these figures represent the lowest rate (11%) of increase in several years and the same percentage of the gross national product (7.7%) noted in 1972.

The evidence is strong that planning for provision of services and health service manpower development has not been based on careful analysis of the service needs of our total population, and how these can be most effectively and efficiently met.

It is the purpose of this paper to outline the potential role of the nurse practitioner and the manner in which she (he) can, in part, contribute to the resolution of our "health care crisis." This will be done through brief analysis of the spectrum of health service problems, consideration of the shift in health problems which has occurred in the last 30 years, a look at the background and training base of the nurse, a look at possible inter-

ferences to an expanded role for the nurse, and a review of the nurse practitioner program currently in existence within the Kansas University Medical Center.

Spectrum of Health Problems and Services

Figure 1 outlines the spectrum of health problems and the broad personnel categories available for provision of services. This model can serve as a base for reviewing changing incidence of health problems and service needs over time, health manpower development, and the degree of congruence or incongruence between the two.

Within the primary health service area, over the past 30 years, the shift from major episodic disease problems to minor medical disease and major and minor psychosocial illness problems is quite striking. To the physician author, who was overwhelmed by the problems encountered in the poliomyelitis epidemic of 1947, and who has not seen a case for the past 15 years, the change is very dramatic. Immunizations and antibiotics have greatly lessened the load associated with acute infectious disease. However, within this time, social change and industrial and technical development have added to psychologic, social-cultural, and technical environmental management challenges to the individual. In addition, our heightened ability to treat chronic medical disease problems has added to the escalating psycho-social illness offshoots of environmental mismanagement. These

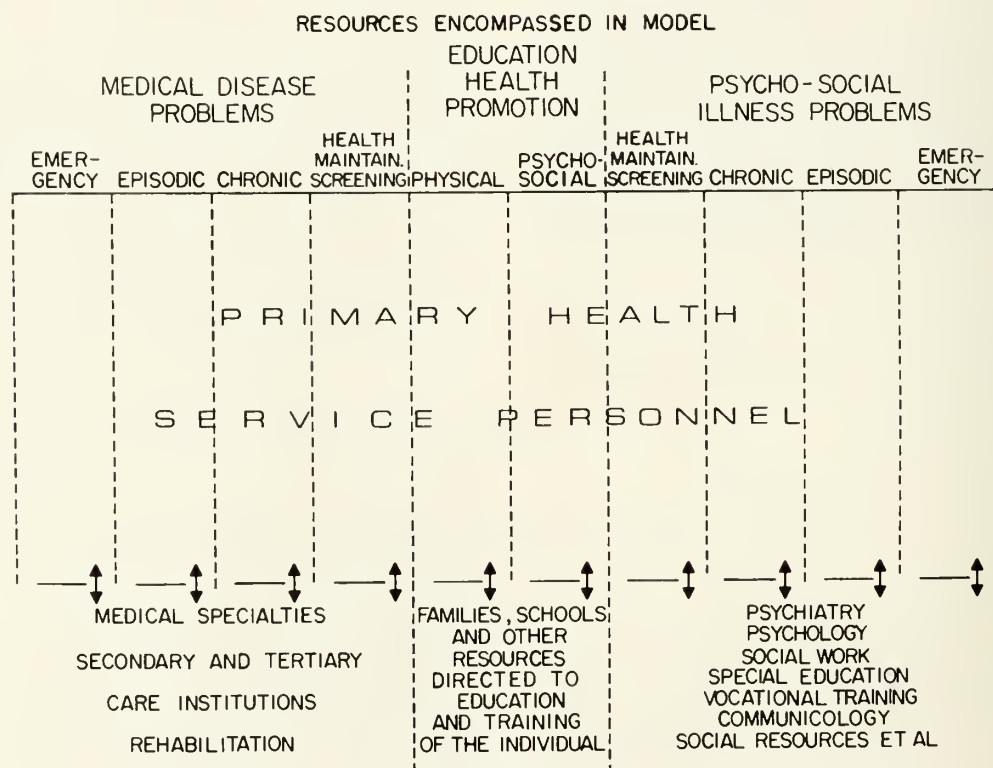


Figure 1

burgeoning problems have placed an inordinate load on physicians who have been trained to handle medical disease. In part to escape from continuing demand, in part to escape the frustration associated with inability to resolve these psycho-social illness problems and in part to feel secure in the knowledge they are treating problems for which they are trained, many physicians have been diverted into secondary and tertiary medical specialty areas. For these and other reasons, there has been a decrease in the number of physicians available for delivery of services within the broad primary care arena.

This process, coupled with the factors outlined in the introduction, has led to the so-called "health care crisis." A crisis exists not because we have more medical disease and a lower level of physical health within our society. The evidence is that our physical health is higher than it was 30 years ago. A crisis exists because society's expectations are misaligned with health care reality and our health service delivery system. The expectations are in part unrealistic in that a concept appears to prevail that health is in some way bestowed upon the individual by other individuals (professionals), and in part realistic because we do have the wherewithal to more closely adapt to the spectrum of service need.

Today, nurses constitute the largest single group of health professionals involved in patient care.⁵ While in 1950, there were 250 nurses per 100,000 population, today there are 340. One of the problems is nurses' withdrawal from their profession. In hospitals, there is a 70 per cent turnover annually. Many studies show that nurses spend 50 to 75 per cent of their time in non-nursing functions. In the state of Kansas, there are a total of 11,001 registered nurses. Of this group, only 8,323 are practicing and 2,678 are on the inactive list. Some of these nurses, both active and inactive, have the necessary experience, knowledge, skills, and enthusiasm to enter the health care system as primary deliverers of health services. Others do not have the necessary skills but are looking for avenues for attaining such abilities. A large portion of this nursing population can be prepared for new and expanded roles through intensive educational programs under the guidance of a multidisciplinary faculty.

Health, Physician, and Nurse Practitioner

The potential service placement of the nurse practitioner is perhaps best projected by a brief review of the determinants of health with case examples. A basic premise is that level of health is determined by the interactions between the individual and his environment (Figure 2).

The healthiest individual is the one best equipped to manage his environment on a daily basis. Health pro-

ENVIRONMENTAL INTERACTIONS INFLUENCING LEVEL OF HEALTH

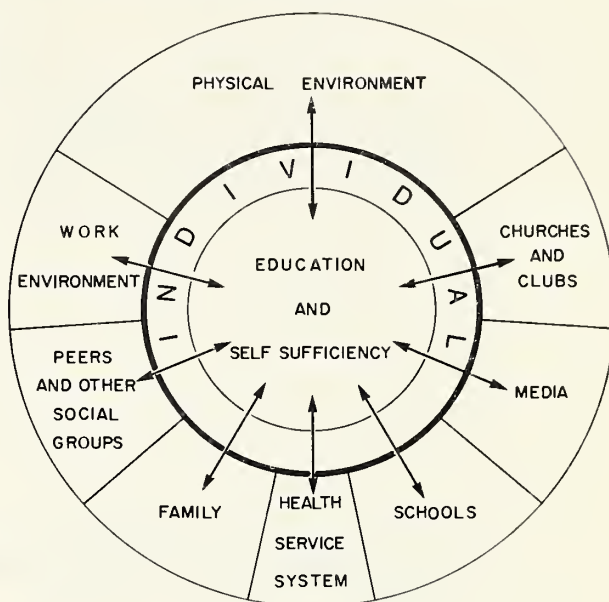


Figure 2

professionals may add to the ability of the individual to cope with the environment, but are adjunctive only.

For the individual well prepared and competent in environmental management, the need for health professional intervention is minimal, as projected in Figure 3.

Other than for occasional intervention, by the physician, for support in the management of medical disease, little is required.

On the other hand, individuals inadequately prepared or subject to excessive environmental challenges, may have great difficulty in managing their environment, and look to the health professional for assistance (Figure 4).

Although these individuals usually are seen through the medical disease complaint route, attention to the complaint alone falls short of providing the services needed to solve their problems and promote their health. Two patient examples of this point follow.

Case 1

A 16-year-old black male presented with the complaint of pain in his feet. Aside from slight point tenderness over his heels, examination of the feet was unremarkable. Further history revealed he had been playing basketball five hours a day for the past several weeks following expulsion from school. Expulsion was the consequence of frequent tardiness. Although he was at grade level, his progress in school had been limited and he was said to be retarded. He also had frequent nocturnal urinary incontinence. His stature was that of

LEVEL OF NEED FOR HEALTH SERVICES BY EDUCATED INDIVIDUAL WITH STRONG PERSONAL SUPPORTS AND SELF SUFFICIENCY

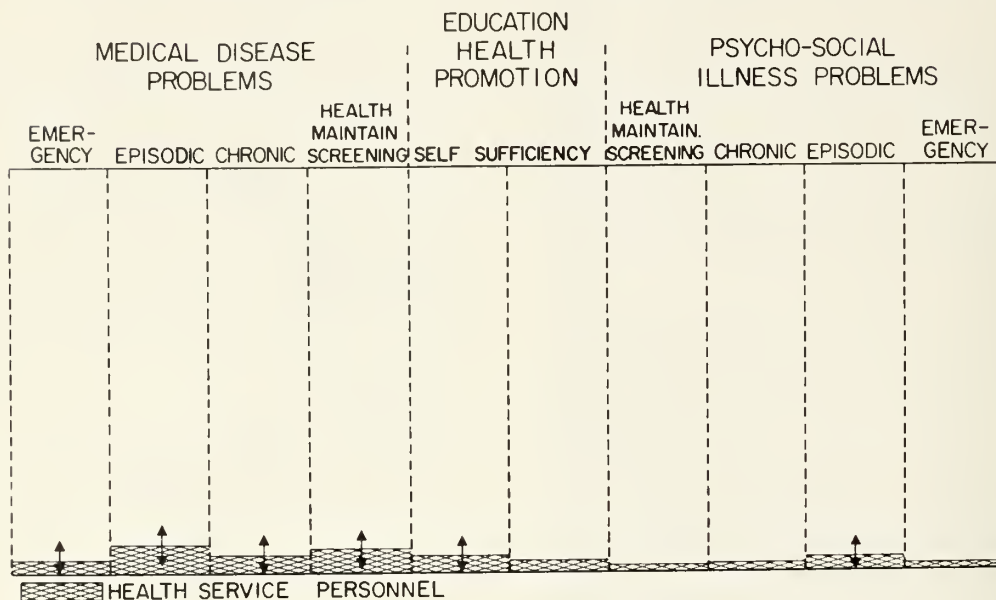


Figure 3

a 12-year-old, and his self-esteem level was quite low. Although no significant physical disease was found, his level of health was judged to be low. With recognition that his problems were mainly those of environmental management, his potential for management was measured and found to be quite adequate. Although he

had some specific learning disabilities, he was clearly not retarded. With the creation of an environment conducive to his learning and through support and attention to his self-concept, he has demonstrated great gains in his environmental management abilities, his personal self-esteem, and his general health.

NEED FOR HEALTH SERVICES BY INDIVIDUAL UNPREPARED TO MEET THE CHALLENGES OF A COMPLEX, INDUSTRIAL, TECHNICALLY, ORIENTED SOCIETY

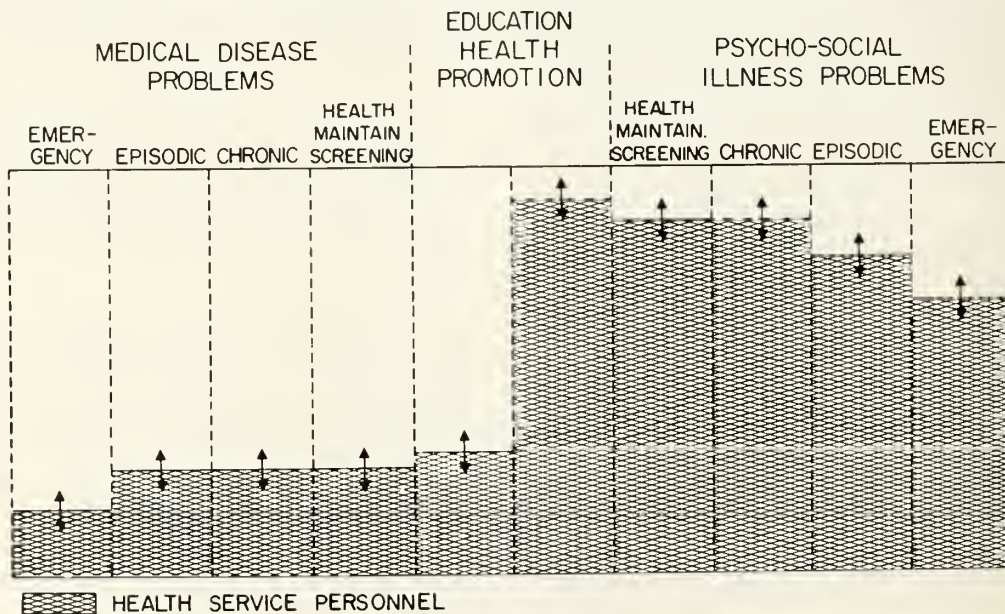


Figure 4

Case 2

Five children of a 32-year-old, white, paraplegic father presented in the clinic because of recurrent streptococcal pharyngitis. A home visit was made to do a throat culture on the father who would not come to the clinic. Previously, the father's problems had been defined as: (1) spastic paraparesis; (2) seizure disorder; (3) neurogenic bladder; (4) severe ankle clonus; (5) family interactional difficulties; (6) sexual maladjustment; (7) unemployment.

At the time of the home visit, he was reluctant to move from the bedroom. He exhibited hostility toward the medical profession. He had been encouraged to return to school, which he had not done. On questioning, it was learned that he couldn't drive all the way to school without stopping in a rest room, and he was too embarrassed to do this. With assistance in vocational development and through continuing personal support by a health professional, the father has shown great gains in his feelings of self-worth and productivity. His ability to manage his environment and his level of health is currently much higher than when originally seen on the home visit.

The individuals cited did not have the education, experience, and support necessary to manage their environment. In the first instance, the young man was unable to meet the demands placed upon him by the school system because of specific learning disabilities. He was also unable to meet the emotional demands placed upon him by his peers and other social groups because of his feelings about his short stature. In the second instance, the father was having difficulty coping with his physical environment, his work environment, and his relationship within his family. In both these cases, educational and support resources were provided through the primary health professional group (*Figure 5*).

In both cases recognition of need, personal support, and mobilization of resources came through the nurse practitioner.

Although variations are seen in category of service need and intensity, among the different socio-economic classes and between urban and rural communities the trend is clear. The primary care needs of modern society are in sharp contrast to the needs of 30-50 years ago, when the primary concerns regarding health maintenance were definition and treatment, or protection from life-threatening or handicapping disease. This problem shift within the primary care setting dictates reassessment of professional function, education, and placement.

The physician with a primary interest in pathology, because of education, training, orientation and current placement, is clearly the professional qualified to man-

THE HEALTH SERVICE SYSTEM AS ADJUNCT TO
SELF SUFFICIENCY OF INDIVIDUAL

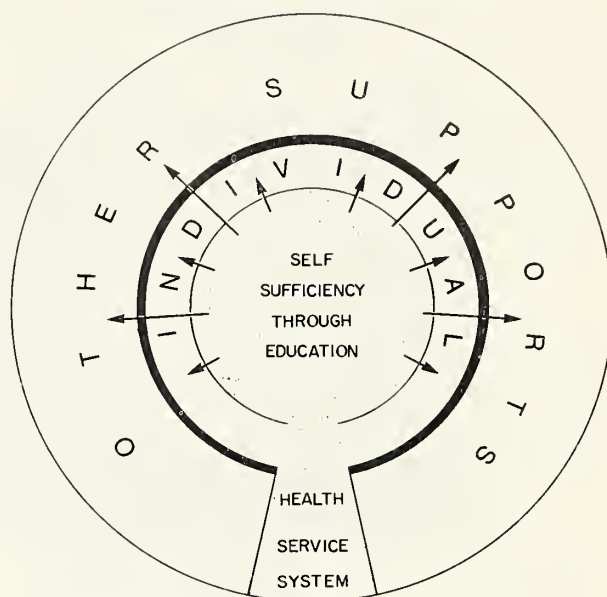


Figure 5

age the medical disease compartment. He is less well prepared educationally and psychologically, and less well placed functionally, to assume the responsibility for the definition of psycho-social illness and the maneuvers necessary for palliation or curative environmental modification. In addition, the physician's orientation regarding medical disease directs him to diagnosis and treatment, and only in a very limited way to patient health education.

On the other hand, the changes which have occurred in nursing education over the past 15 years have greatly increased the qualifications of the nurse to manage the primary care psycho-social illness compartment. In addition, her orientation to patient health and well-being directs her to a very active role in health education. This potential health-service-sharing relationship between the physician and the nurse practitioner is portrayed in *Figure 6*.

Implementation of such an arrangement requires recognition that health services, at this point, are channelled primarily through the medical access route. Just as the physician should have knowledge and insights regarding the dynamics of psycho-social illness problems, and insights regarding the importance of health education, the nurse must have knowledge of common medical disease states and the techniques of physical as well as psycho-social assessment. Accordingly, she must be adept in history taking, physical examination, definition of the common, simple, medical disease problems, and recognition of the more severe medical disease problems

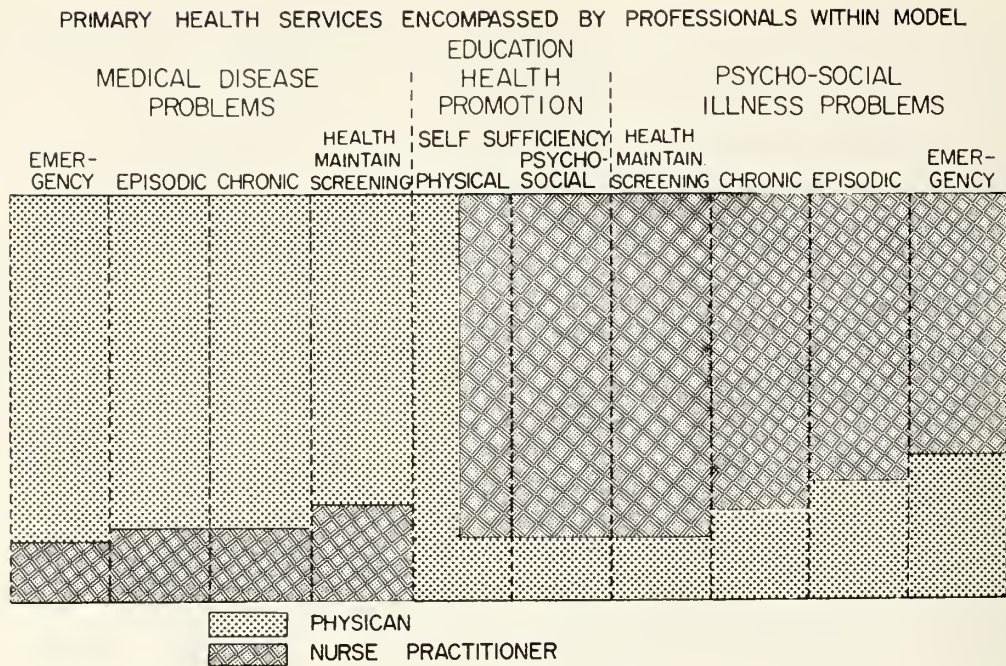


Figure 6

which must be directed to the personal attention of the physician.

Interferences to functional placement of the nurse practitioner as outlined are many. Most notable is the traditional concept of nursing function, derived in part from hospital nursing, where the nurse follows the orders of the physician, as well as from the office environment, where the nurse functions primarily as a limited technical assistant to the physician. The changes which have occurred in nursing education over the past 10-15 years have tremendously increased the potential of the nurse for professional function. Unfortunately, past practice continues to obscure the vision of the nurse, the doctor, and the patient as to the significant independent contributions the nurse has to offer the patient. Another interference is the lumping of all services into a general category of medical care. This implies legal responsibility by the physician for all aspects of care, and mitigates against the development of the professional partnership between the physician and the nurse, which would be most functionally useful. Clearly, the physician is legally responsible for the medical disease problem area. Function in this area by a non-physician must be considered as delegated by and a primary responsibility of the physician. When the nurse is functioning in this area, she is essentially serving as a physician's assistant. On the other hand, assuming the educational and training background necessary for professional function within the psycho-social illness compartment, she is well equipped to function independently as a professional in these

areas. The professional proficiency of the nurse should be most evident in the area of health education and health promotion. With these recognitions, the problem of legal conflict will largely disappear. Finally, within the fee-for-service settings there are economic interferences. Reimbursement for services is largely in response to diagnosis which has medical disease implications. Within a fee-for-service setting, this interference will not disappear until there is equal credit and dollars paid for service for psycho-social illness and health education. Within prepaid group practice this is a lesser problem.

Nurse Practitioner Training at KUMC

A training program for nurse practitioners offered by the departments of Human Ecology and Nursing Education, with the cooperation of the Department of Obstetrics and Gynecology and the Department of Pediatrics, was initiated in September 1972. The program was designed to prepare registered nurses as practitioners capable of providing primary care as per the framework outlined in this paper.

The trainees have enlisted from the existing pool of registered nurses. Of the 42 enrolled to date, 25 have nursing diplomas, 14 have baccalaureate degrees in nursing, and 3 have master's degrees.

The faculty includes nurses from the Departments of Human Ecology and Nursing Education, physicians from the Departments of Human Ecology, Pediatrics, Obstetrics and Gynecology, Internal Medicine, Ophthal-

mology, Surgery and Otolaryngology, plus a variety of contributors from other disciplines.

The training schedule includes four months of a combination of intensive didactic and clinical teaching at the Kansas University Medical Center in Kansas City, coupled with closely supervised clinical training in patient and family medical and health service settings within the Medical Center and the community. Additional eight months are spent working with a physician or nurse preceptor in a private or public community health setting.

At the end of the year, in accordance with the standards set, the nurse is expected to demonstrate her knowledge of:

1. anatomy and physiology of organ systems and their interrelatedness in the total person;
2. current health problems of children, adults, and families in community settings;
3. current theories of family planning;
4. current principles of prenatal and postnatal care;
5. child, adult, and family development tasks essential to health;
6. habit patterns, including food consumption practices of individuals, families, and cultures.

Periodically and at the end of the year, the nurse is also evaluated with regard to her skill in:

1. history taking;
2. physical examination, including gynecologic examination of the female and evaluation of nutritional states;
3. use of growth and development tools;
4. family planning practice;
5. psycho-social assessment of the individual and the family constellation;
6. communication and patient education;
7. utilization of multidisciplinary approach in planning health care;
8. evaluating patient response to the therapeutic and educational process.

Upon graduation and satisfactory completion of the above, a certificate is bestowed.

Nurse practitioners from the program are functioning in a variety of settings, ranging from private physicians' offices and multidisciplinary primary care centers to family planning agencies and health departments. As this is a new and unusual role for all concerned—students, preceptors, associates and patients—the level of acceptance and opportunity for function vary from setting to setting. However, preliminary signs are strong that these environments will be highly receptive to nurse practitioner function as outlined, when professional proficiency is clearly demonstrated.

Information for Authors

Manuscript Preparation

Manuscripts must be typewritten, double spaced, leaving wide margins. Submit the original, plus one copy if possible.

Titles should be short, specific, and amenable to indexing. A subtitle is frequently used to keep the main title short.

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Author Responsibility: The author is responsible for all statements made in his work, including changes made by the copy editor. Manuscripts are received with the explicit understanding that they are not simultaneously under consideration by any other publication. Publication elsewhere will be subsequently authorized at the discretion of the Editor.

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Drugs should be called by their generic names; the trade names can be added in parentheses if they are considered important. All *units of measure* must be given in the metric system.

References

Bibliographic references should not exceed 20 in number, documenting key publications. Personal communications and unpublished data should not be included. References should be arranged according to the order of citation, and not alphabetically. All references must be numbered consecutively and all must be cited in the text. Use the style of the AMA publications, giving; name of author, title of article, name of periodical, volume, pages, year.

Illustrations

All material which cannot be set in type, such as photographs, line drawings, graphs, charts, tracings (for preparation of tables, see below) must be mounted on white cardboard. All must be identified on the back as to figure number, author's name, and an arrow indicating top. Legends should be typed double spaced on a separate sheet of paper, limited to a maximum of 30 words.

Drawings and graphs should be done professionally in India ink on illustration board or high grade white drawing paper.

Photographic material should be submitted in duplicate as high-contrast, glossy prints. Color illustrations will be accepted for publication only if the author assumes the cost.

THE JOURNAL will assume the cost of B/W engravings and cuts up to \$35 (or 5 cuts). Engraving cost for illustrations in excess of \$35 will be billed to the author.

Tables

Because tables are set by hand, their cost is comparable to illustrations. A reasonable number of tables are allowed without cost to the author.

Tables should be self-explanatory and should supplement, not duplicate, the text. Since the purpose of a table is to compare or classify related items, the data must be logically and clearly organized. The relationship and comparison are established by the correct choice of column heads (captions of vertical columns) and stubs (left entries in horizontal listings).

Each table should be typed double spaced, including all headings, on separate sheets of lettersize paper. Oversize paper should not be used. Instead, repeat heads and stubs on a second sheet for tables requiring extra width. Number tables consecutively. Each table must have a title.

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Physician's Assistant Program

Development and Current Status at WSU

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VALGENE J. VALGORA, R.P.A.,* and

D. CRAMER REED, M.D.,† *Wichita*

WSU PHYSICIAN'S ASSISTANT PROGRAM came into existence September 30, 1972, as the result of the Bureau of Health Manpower Education of the National Institutes of Health awarding contract #4199 to Wichita State University for the initiation and development of a training program for physician's assistants. D. Cramer Reed, M.D., at the time Dean of WSU College of Health-Related Professions, was named project director; Valgene J. Valgora, R.P.A., a graduate of the Duke University Physician's Associate Program, was appointed Program Director; and Alfred H. Hinshaw, M.D., was appointed Medical Director.

The contract contained a section entitled "Scope of Work." Several of the items contained therein have actually become the major guidelines under which the program was initiated and developed. These particular items were to:

1. Implement a training program to enroll at least ten students by January 1, 1973.

2. Assure that the total program, including didactic and clinical training, is two years in length and meets the "Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician" of the Council on Medical Education, AMA.

3. Conduct the recruitment of the students in such a manner as to assure that the majority of students will have had previous medical experience or training, or will be members of disadvantaged or minority groups, women, or residents of medically underserved areas.

4. Develop methods through which students may earn appropriate academic degrees.

5. Establish most preceptorships in primary care practices in rural or inner-city areas.

Before proceeding with a report on our own program, it would seem advisable to define what is meant by "Type A" physician's assistant, and discuss briefly the "Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician."

The National Academy of Sciences has defined Type

A, Type B, and Type C physician's assistants. Their definition of the Type A physician's assistant is:

The Type A assistant is capable of approaching the patient, collecting historical and physical data, or-

Included in Governor Docking's budget message to the 1974 session of the Kansas Legislature was an item for the WSU Physician's Assistant Program. The appearance of this item suggested that it was an appropriate time to make a report to the profession of the progress of the program.

ganizing these data, and presenting them in such a way that the physician can visualize the medical problem and determine appropriate diagnostic or therapeutic procedures and coordinating the roles of other, more technical, assistants. While he functions under the general supervision and responsibility of the physician, he might, under special circumstances and under defined rules, perform without the immediate surveillance of the physician. He is thus distinguished by his ability to integrate and interpret findings on the basis of general medical knowledge and to exercise a degree of independent judgment.

The test of the Essentials of an Approved Educational Program was established by the American Medical Association Council on Medical Education, in collaboration with the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians and American Society of Internal Medicine, and was adopted by the AMA House of Delegates, December 1971.

A task force of representatives of the four organizations named in the preceding paragraph had, in meeting the AMA's guidelines for development of new health occupations, prepared a document describing the role and projected activities for the assistant to the primary physician. This appears as an appendix to an article

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† Vice-President for Health Education, Wichita State University.

by Frank A. Riddick, Jr., M.D., appearing in the *Physician's Associate*, October 1972.¹ Since this has contributed guidelines for program and curriculum development, several sections are quoted to better identify the philosophy of the WSU program.

"The addition of this new health professional is an attempt to bring high level personal medical care to all citizens through an extension of services of the primary physician, not an attempt to give second rate care to some citizens by providing physician substitutes.

"The physician's assistant to the primary physician . . . works closely with and under the supervision of a doctor who functions as the primary physician to his patients. . . . His training prepares him to support the physician in his daily activities; many of his duties include functions now done by the doctor.

"The physician's assistant will be involved with the patients of his employer in all settings of medical care; the office, the ambulatory clinic, the hospital, patient's home, extended care facility and nursing home. His work is under the supervision of the physician who retains responsibility for patient care, although the physician need not be present at each activity of the assistant nor be specifically consulted before each delegated task is performed.

"Intelligence, ability to relate to people, capacity for calm and reasoned judgment in meeting emergencies, and an orientation toward service are qualities essential for the physician's assistant. As a professional, his respect for the person and privacy of the patient must equal that of the physician.

"In rendering the services appropriate to these types of care, the primary physician traditionally performs a variety of activities. Among these are some which are essential to his serving the patient and which can be performed only by him.

"The tasks performed by the physician's assistant are those which require technical skills, execution of standing orders, routine patient care tasks, and such complicated diagnostic and therapeutic procedures as the physician may wish to assign to the assistant after he has attained and demonstrated his proficiency through adequate instruction and for whose action the doctor is willing to accept responsibility.

"The practice of medicine is the responsibility and prerogative of the physician with whom the physician's assistant works. It should be understood by all members of the medical care team and explained to patients that the assistant makes decisions and executes tasks assigned by the physician."

In spite of the short time available, 40 fully qualified applicants were screened and 12 selected by December 31, 1972. They began the didactic phase of their training on January 22, 1973. For summation of the profiles of

TABLE I
WSU PHYSICIAN'S ASSISTANT PROGRAM
Composite Student Profile

	January, 1973 Class	September, 1973 Class
Total number of students ..	12	24
Age		
range	23-41	21-41
average	29	28
Sex		
female	2	6
male	10	18
Minority	2	6
Educational background		
baccalaureate plus at least		
12 hours	1	2
baccalaureate degree	1	9
90 credit hours or more .	0	1
60-89 credit hours	2	5
30-59 credit hours	1	2
less than 30 credit hours .	3	4
high school diploma	4	1
Military corpsmen	8	10
Medical experience—		
months average	84	75

these and of the 24 who began their didactic education on August 27, 1973, reference is made to *Table I*.

The curriculum posed some problems. Not having (at the time) an ongoing medical school, it appeared that it would not be possible to adopt the curriculum of one of the physician's assistant programs associated with a medical center. Furthermore, it seemed that their curricula were incomplete from the standpoint of the needs of Kansas and our students, and that more effective use of time and instructors could be made. The integrated curriculum that evolved is based on a modular or vertical block system in which material to be learned is grouped logically around an organ, a group of diseases, a system, a region, a specialty, or an historically effective grouping (*e.g.*, Ob-Gyn).

In the development of such teaching modules, the traditional courses are discarded and the essential portions applied to the appropriate module or modules. In each module, the applicable basic anatomy (including gross, microscopic, and embryology) and physiology are covered, to give rational understanding to the evaluation, pathology, and management of disease processes. Emphasis is placed on evaluation methodology (history, physical examination, laboratory, diagnostic x-ray, special procedures, and diagnostic techniques) and clinical medicine (identification of the common diseases, problem assessment, and formulation of management plan). When applicable, clinical surgery (resources and man-

agement vis-à-vis technical procedures), special problems of children, special problems of the geriatric patient, emergencies (recognition and management of all types), pharmacology, rehabilitation, special management problems, public health and epidemiology, medical sociology, and voluntary health agency resources are also considered.

Our first group of modules were designated as follows: Integumentary, Venereal Disease, Cardiovascular, Pulmonary, Gastrointestinal, Endocrinology, Genitourinary, Eye, Head and Neck, Neurology, and Musculoskeletal.

We have asked physicians who are recognized as authorities on a particular module to serve as the consultant-advisor for that module. In that capacity, they assume an important role in deciding what the physician's assistant "should know." In addition to and in varying degrees, they helped with the development of the detailed curriculum for the module both as to content, time allotment for each subject, identification of other potential faculty members, and instructional materials.

An additional word on the "should know" concept: We have had the benefit of portions of curricula utilized in other programs, the invaluable educational and clinical experiences of our program director, consultant-advisor input, input from physicians over the state, and other health professionals. At best, it is arbitrary and empirical. As further experience is gained, graduates are placed, physicians (both preceptors and others) become more familiar with physician's assistants and their potential, the curricula will undergo further modification and will become more rational and less empirical. It is in the "should know" aspect of the program that we particularly need input from the primary physicians of the state.

We have gained a considerable amount of experience with the modular system in a relatively short time. While convinced of its value for the initial class, it was believed that certain changes should be made, which were implemented for the second class. Among these are a longer introductory phase, more time between modules, with time for review of earlier modules, more case studies, and an earlier introduction to clinical work. Since the program is physically located at the Veteran's Administration Center, it is possible to use the hospital as a teaching facility more easily than would otherwise be the case. The result of these changes will be to increase the "didactic" phase to approximately 11 months but, as has been indicated, it will not be purely didactic.

The balance of the two-year program is composed of clinical rotations. In these, the student is assigned to a physician preceptor with whom he or she works in an appropriate setting subject to pre-established conditions

and with a predetermined group of goals. During such rotations, usually four or six weeks in length, the student is assigned full-time to the preceptor. For the present group of 12, who began their rotation on October 1, 1973, the following rotations were established: Medical inpatient service, surgery, ob-gyn, rehabilitation, public health, dermatology, emergency room, primary care, mental health, family practice, admitting and personal health care, intermediate level health care, and clinical preceptorships.

A note on the clinical preceptorship: This is eight weeks in length and is designed as a culmination of the students' clinical training. The students are placed with a primary care physician (preferably in other than an urban setting) to enable them to function as members of the health care team in an environment similar to that which would be encountered by a graduate physician's assistant.

Although planned to be taken near the end of the training period, the clinical preceptorship may take place at other times. It is designed, however, so that it could be used as a trial period for the student/preceptor as a prospective employee and employer respectively.

As in the case of the didactic phase, input from the medical profession relative to content of the clinical rotational phase is most welcome.

Evaluation to Date

Early in 1973, John Nickel, D.Ed., of the WSU College of Education, was asked to evaluate certain aspects of the program from the educational viewpoint. He has continued to work on a part-time basis in further developing the curriculum, so that the student can obtain academic credit for certain course work. As of December 1973, it is projected that approximately 80 credit hours will be earned in the two-year period. These, when other university course requirements are met, will permit the student to earn appropriate degrees. Referring again to *Table I*, it will be seen that little additional work would be required for most students to earn a baccalaureate degree if they so choose.

Application for provisional approval was made to the AMA Council on Medical Education, and in August an evaluation team representing the Joint Review Committee on Educational Programs for the Assistant to the Primary Care Physician visited the program. Provisional approval as the result of the findings and recommendations of the committee was granted December 1, 1973. It should be pointed out that "provisional" is the only type of approval the committee will grant prior to graduation of the first class, after which there will be a re-evaluation.

In their letter of approval, the committee noted among the strengths of the program "the broad base of en-

thusiastic support among institutional administrators, practicing physicians, and the state medical society; the strength of the administrative support from the Dean of the WSU Branch of the KU School of Medicine and the program administration; the evidence of potential for sustained financial support from the state legislature; the scope of the clinical affiliations, including the clinical practicum in intermediate (extended) care; and the addition of the educational expertise to staff for improving upon the definition of behavioral objectives and the development of evaluation protocols for the students, faculty, preceptors, and program performance."

In September 1973, Robert Howard, M.D., Chief of the Division of Graduate Education and Family Medicine for the Department of Community Health and Family Medicine in Gainesville, Florida, who before moving to Florida had been director of the Duke Physician's Associate Program for six years, visited our program as a consultant. His on-site criticism and subsequent report were valuable contributions to the further development to our program. It was his opinion that the program had made rapid but sound progress and that it should be further developed in the direction of and along the lines on which it had been started.

No major changes in the development strategy are contemplated. The published requirements for admission will be elevated, but it is not anticipated that this will change the type or quality of the selectee, as those already enrolled would have met these proposed elevated standards. No increase in the class size will be made unless results of a utilization survey to be discussed later suggest the need for change. The future need for continuing education for our graduates is currently under study. Although we are planning to follow the present general curriculum outline, it will be far from static. Further refinement in both content and format (*e.g.*, learning objectives) will take place. Increased use of self-instructional material will occur as appropriate software is procured or developed. The establishment of the CC-TV network, ultimately linking KUMC, the WSU Branch and three Kansas Veterans Hospitals, will add a new dimension to the educational resources both for the students and the graduates pursuing their continuing education needs.

As indicated in the preceding paragraph, a need exists to update the physician's assistant utilization study made by the Kansas Medical Society and the Kansas Regional Medical Program, as reported in the May 1972 issue of *THE JOURNAL OF THE KANSAS MEDICAL SOCIETY*.² This will be initiated in 1974. It is hoped that Kansas physicians asked to participate will assist us in evaluating the need for and future roles of this physician extender program.

The program needs additional clinical rotations in

family or primary practice, particularly those in rural areas. Although primarily for training of the physician's assistant student, such a rotation can serve a dual purpose in that it could also serve as a "trial marriage" between a prospective preceptor and preceptee without any firm commitment on the part of either.

The staff frequently accompanied by some of the students has appeared before groups in several areas of the state. The cities in which these appearances have been made were: Emporia, Halstead, Garden City, Hutchinson, and Colby. The program also had an exhibit at the 1973 annual meeting of the Kansas Academy of General Practice, in Great Bend. The staff welcomes invitations to present its program before professional medical groups and, if sponsored by local members of the profession, before civic groups as well.

Visitors to the VAC Teaching Center and inquiries regarding the program are welcome at all times; constructive criticism of the curriculum is appreciated.

Summary

A Physician's Assistant Program was initiated at Wichita State University in October 1972, following the awarding of a contract by the Bureau of Health Manpower Education of the National Institutes of Health.

The program was to train Type A physician's assistants for the primary physician. It was to be two years in length and meet the "Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician" of the Council on Medical Education, AMA.

The first class of 12 began the didactic phase of their training in January 1973, and the clinical phase in October 1973. A second class of 24 began their training in August 1973. In the didactic phase, the traditional approach to the teaching of medical subjects has been largely abandoned in favor of a vertical block, or modular type of approach.

Preliminary approval by the Advisory Committee on Education for the Allied Health Professions and Services of the AMA was given December 1, 1973. A study to update the findings of KRMP-KMS survey of the demand for physician's assistants in Kansas published in *THE JOURNAL OF THE KANSAS MEDICAL SOCIETY* in May 1972, will begin within a few weeks. The program has need for clinical rotations for training in a primary care setting in a rural community. Program visitations by physicians are welcome.

References

1. Riddick, F. A., Jr.: Educational essentials for physician's assistants development and implications. *Physician's Associate* 2:118-124, 1972.
2. Baranowski, T.; Adair, C. H. and Brown, R. W.: Call for help; The demand for physician's assistants in Kansas. *J. Kans. Med. Soc.* 73:241-251, 1972.

The President's Message

To deny that being President of the Kansas Medical Society is not a great thrill and honor, a person has never lived. My family, and especially myself, express gratitude to you for the opportunity of serving as your president. Little did I expect 35 years ago to be President of the Kansas Medical Society and to be retiring almost simultaneously. I expect this to be a most exciting and rewarding year. To me, this personal honor more than rewards 35 years of serving the Kansas Medical Society. I assure you my dedication to carry on in a tradition worthy of my predecessors.

As this is written before the House of Delegates meeting, I am humbly suggesting that the many tasks necessary for the Medical Society function be done in the most effective way possible. I have limited my proposals to the House of Delegates with the following in mind, mentioned here briefly.

First, let's consider the Legislative Committee. I truly believe this to be one of the more important committees of the Medical Society. It has the capacity to take a Medical Society position on important legislation which can be timely and represents the best judgment of those in a position to know—namely, the members of the committee. I propose continuation of this important on-going committee with no real change in direction or policy, except possibly for some measure of control and direction from the Executive Committee for radical changes in policies or entirely new recommendation for legislative action.

Second, the Leadership Conference. A truly top elite group of people participated in the first Leadership Conference held at Crown Center in early February of 1974. The talent represented at this meeting would have been a compliment to any national meeting. The eyeball confrontation between Congressman Bill Roy and Bernie Harrison from the AMA may never be equalled. This conference, in my belief, should be the most important educational and informative meeting we schedule for the membership.



Third, I am sure there could and should be a compensatory program for pre-medical minority students who have the aptitude. If given help during their college career, these students could and would meet the high scholastic requirements for medical school and be admitted for scholastic excellency, instead of as second-class students. I propose that the Kansas Medical Society actively participate, take the initiative, and make it one of its prime objectives, lobbying for new legislation to implement compensatory education for minority groups. There is a real need for minority physicians, lawyers, and other professions. So far, to my knowledge, there has been no state or government support for such programs.

John Blum

President



The Chronic Defensive Syndrome

Dr. James Ransom's cogent response in the April issue of the JOURNAL to our comments regarding the PSRO hassle was welcome and effective. We agree with much of what he says but, as a matter of fact, the points we made originally differ in form and direction from his comments. We noted the fact that the PSRO law was established and that effort at amending it and influencing its application would be more effective than attempting to repeal it. We arrived at this not-too-satisfactory conclusion because we see the act not as a newly established principle in itself but another surge in a strong social tide which the medical profession alone cannot turn back. The fact that we do not think the profession will succeed in its repeal effort does not derive from any desire to see such failure or approval of the increasing bureaucratic incursions on the practice of medicine. But the same arguments which might be used (we think futilely) in an effort to repeal can be used more effectively to assure the changes and function of the PSRO effort in accordance with sound medical principle. Dr. Ransom assures us that the physician does not shun the therapeutic effort simply because failure is almost certain—but does he continue a failing effort without considering the possibility of other therapy?

This seems to us another manifestation of the Chronic Defensive Syndrome which has long afflicted the profession. Over the years, organized medicine has responded to social and political pressure by a policy of resistance. The physician's purpose was to retain what he considered at that moment a desirable system, but it has led to a policy of reaction rather than action. The successes of the profession in its socio-political efforts have been measured in what it has stopped rather than what it has started. This approach has not been without value since the forces of change need to be restrained, examined, and directed to keep them in productive channels. But much of the contribution the profession could have been making has been dissipated in the defensive posture.

The ineffectiveness of the profession in this area has often been a failure to communicate to the public generally what it was doing. Postgraduate education, peer review, intramural disciplinary processes, quality control, distribution of physicians to underserved areas and groups—all these and more have been pursued by physicians with ultimate social benefit. But the public has known little of such things and probably cared less until the changing social scene has produced a cacophony of demands and the profession is put in the position of trying to extend these same efforts, make them more visible, deny its shortcomings, and prevent destructive change. Unfortunately, it does not enhance the status of the profession that it has already been pursuing such programs when it requires socio-political pressure to bring them to public awareness and extend their function to a publicly demonstrable level. The physician is in the uncomfortable situation of having to say, "These are not necessary, they will make matters worse, they may be dangerous—and anyway, we've been doing them right along." It is not surprising that the process has stronger overtones of defensiveness than creativity and innovation, but the latter qualities must be developed if the medical body is to regulate rather than be regulated.

Medicine is a science artfully applied. The scientific basis demands proof and experience for acceptance, hence there is strong authority for retaining that which is established and productive. At the same time, exploration and experiment are an essential part of the progress toward more effective effort, so the physician is continually subjected to the conflicting stresses of these interdependent but seemingly opposed concepts. And he knows better than any that, while impossible of scientific definition, certain ways in which he applies his knowledge, certain features of personal effort have significant influence upon their success. Thus is the "art" established and the individualism of medical practice is established.

The physician has always felt that he did a good

job of blending these elements of science and art, and resents out of hand his social and political detractors. He feels he is highly motivated, his efforts are sincere and worthy, and his services are beneficial. These are laudable characteristics which have combined to bring great benefit to his patients. They lead, however, to the specious assumption that the good relationship they engender between the individual physician and individual patient can be amplified X times to produce the same relationship between the entire profession and society as a total unit. It is self-deluding of the physician to assume that his patients individually or combined into an amorphous "public" are going to approve and support the corporate attitudes and philosophies of the medical body because he himself is loved. We all vent hostilities against these mass entities which we would not think of directing toward an individual member who is our personal acquaintance, and as members of groups, we may accept and participate in corporate action we would not use as individuals.

The physician's vaunted individualism is a heavy blessing because it requires that before his professional organization can function as a unified body in the political world of maneuver and compromise, there must first be internal compromises of its members to arrive at that unification. Otherwise (as experience has shown), the organization becomes fragmented and its efforts unavailing. Without cohesive thought and effort, it can produce no positive programs, no equitable solutions to neutralize its socio-political adversaries, and it is forced to continue in its defensive pattern.

The defensive attitude leads to a feeling of abuse and discrimination which the physician must overcome before he can approach these socially induced problems with maturity and objectivity. We have noted before that his professional successes have directly contributed to these social problems: an increasing population, the survival of the aged and infirm in previously undreamed-of numbers, iatrogenic problems. His accomplishments in the interest of his individual patients bestow upon him the spiritual and material rewards for his grueling efforts but translated into total social effect, these same accomplishments do much to create the political circumstances that confront him. He cannot divorce himself from the process at this point nor produce effective counter-effort by a continuing defensive attitude. Somewhere along the line, he must produce the capability to propose rather than oppose, to provide, as a group, to the illness of society the same effective degree of therapy he provides on an individual basis.

The prospects are not so grim as dissertations of this

sort might suggest. It is perhaps worth noting that the medical principles of the day which we so vigorously defend include many desirable features which our fathers, in their day, stoutly resisted, even as they defended methods and beliefs which *their* fathers resisted. This simply means that change is inexorable and the physician will achieve the greatest good for his patients when he moves out of his defensive position and applies his intellect and ability to foreseeing the effects of his successes and developing positive programs to meet them. Maybe another time around will do it.—D.E.G.

NEW MEMBERS

The JOURNAL takes this opportunity to welcome these new members into the Kansas Medical Society.

- | | |
|---|---|
| Constantine Arvanitakis, M.D.
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| Chana Buakham, M.D.
K.U.M.C.
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| Fernando deElejalde, M.D.
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Kansas City, Kansas 66103 |
| Joseph G. Hollowell, Jr., M.D.
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Kansas City, Kansas 66106 |
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4th and McGee
Caney, Kansas 67333 |
| Henry E. Hynes, M.D.
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Wichita, Kansas 67214 | Wilson Uy, M.D.
2012 West 7th
Coffeyville, Kansas 67337 |
| Sayed S. Jehan, M.D.
1801 East 10th
Wichita, Kansas 67214 | John L. Vakas, M.D.
1508 West 4th
Coffeyville, Kansas 67337 |

Month in Washington

Despite a strong labor-backed move to the contrary, the House easily approved legislation allowing self-employed people such as lawyers and physicians to deduct from federal income taxes up to \$7,500 a year provided it is placed in a qualified pension plan.

The Senate had already approved the provision—part of an overall pension reform bill—making chances of final Congressional enactment and signing into law almost certain.

The current Keogh program limitation on tax deferrals for retirement is \$2,500 not to exceed 10 per cent of income. The new provision allows \$7,500 not to exceed 15 per cent of income.

Spokesmen for the provision, including the AMA, urged lawmakers to approve on grounds the cost of living has increased dramatically since the Keogh Law was last liberalized.

The legislation for the first time imposes certain limitations on corporate retirement programs including those for so-called professional service corporations. Tax deferrals will not be allowed on savings that would exceed a pension that brings in more than 75 per cent of highest earnings over a three-year period or \$75,000 a year, subject to cost-of-living allowances in the future. A "grandfather-clause" exempts people eligible for more than \$75,000 based on current compensation and additional period of employment.

A total of 203 areas have been designated for Professional Standards Review Organizations (PSROs) by DHEW, 21 more areas than tentatively proposed last December. The final area designations—published in the Federal Register—were handed down after a month-long review of hundreds of comments from physicians groups. "We have now reached an important milestone in implementing the PSRO program," commented HEW Secretary Caspar Weinberger. "Local physician groups can now take the lead role in establishing PSROs for the areas we have designated."

The most significant change in the final regulation was naming Georgia and Washington as single PSRO areas. Both states have more than 5,000 physicians, and had been divided into three PSRO sections each. In the earlier proposed regulations, HEW had indicated it would limit a PSRO area to 2,500-3,000 physicians. Many states and the AMA had urged HEW to permit

some states with higher physician populations to serve as single PSROs.

Other changes included designating as a single area Hawaii, American Samoa, Guam, and the Trust Territories. These Pacific areas had been proposed for two PSROs. All told, 31 states and territories will serve as single PSROs; 22 as multiple PSROs.

HEW invited applications for contracts from qualified physician organizations to plan PSROs, to begin operation of PSROs on a conditional basis, or to establish statewide organizations to provide support services to local PSROs.

"We believe that PSROs which are to be planned, operated, and controlled by private physicians can significantly improve the quality of medical care rendered in institutions to beneficiaries of government health programs," said Weinberger. "For this reason, we have proposed that PSROs be expanded to monitor the quality of all services provided under the Comprehensive Health Insurance Plan which President Nixon recently submitted to Congress."

Vox Dox

Vox Dox Editor:

Again, this year I am compiling case reports of allergic reactions to biting insects, i.e., mosquitoes, fleas, gnats, kissing bugs, bedbugs, chiggers, black flies, horseflies, sandflies, deerflies, etc. I am also interested in reactions to the Imported and Southern Fire Ants.

I would like physicians to supply me with case reports of those patients who have had reactions to such insects. Include in your reports, the type of reaction and complications, if any, the age, sex, and race of the patient, the site of the bite(s), the season of the year, the immediate symptoms, the skin test results, desensitization results, if any, and any associated other allergies. Send this information to the following address: Claude A. Frazier, M.D., 4-C Doctors' Park, Asheville, NC 28801.

Thanking you in advance, I remain

CLAUDE A. FRAZIER, M.D.
Asheville, N. C.

Woman's Auxiliary



Key Notes

There's nothing like reporting time to catch up on what our members are doing across the state! And we're impressed by how well some of the small auxiliaries carry out their projects. The Keys (committees) we've been speaking of all year function directly in the component groups, choosing their projects and programs of special interest. For example, in one county, members work with "Good Cheer," a program for the elderly and shut-ins, and raise money for parties and gifts, as well as a piece of equipment for the local hospital. All kinds of devices are used to raise funds for AMA-ERF, and this is another universal effort among auxiliaries of varied sizes. Other groups hold auctions or sales to benefit hospital patients and the handicapped. One auxiliary arranged for the showing of the film, "VD, A New Focus," to junior and senior classes. Many members work with school counsellors to make available health careers materials, such as *The Allied Health Directory*.

At least five county groups conducted GEMS courses (Good Emergency Mother Substitutes) in baby-sitting instruction, in cooperation with community police and fire departments, health personnel, youth groups, and the Red Cross. Over 250 young girls graduated during the year. One ten-member auxiliary promoted the safety film, "It Could Happen to You," in eight towns. The HER Van was sponsored by several communities in

northwest Kansas during the fall, and KSTC, Emporia, and several communities in the eastern section will host HER this spring. At least 50 scholarships and loans are made available to career students through auxiliaries, and many others through private donation. Even the smallest groups have funds for this purpose. Members also enjoy sponsoring health career clubs in the high schools.

Almost every auxiliary among the 29 organized groups works in some phase of international health: collecting sample drugs, making clothes, toys, bandages, quilts, and pillows to be shipped to Project Concern or World Medical Relief (overseas) . . . assisting in the sending of 8 tons . . . 215 barrels. Women throughout the state serve in hospital auxiliaries and on boards, Red Cross bloodmobiles, hot meal programs, and as volunteers in dozens of community and youth organizations. Yes, our members are busy, concerned, and enthusiastic about a wide range of health and community programs . . . they just don't like to report them. . . . But we are certain that as long as doctors serve in communities, their wives are going to represent them, as well as promoting their own concerns, in far-reaching endeavors. Yes, we have the keys, and the motivation to make a fine contribution, wherever we live. Hope you agree!

Katie Keys

MOVING?

When you change your address, be sure to notify the JOURNAL, preferably one month in advance. In that way, you'll get every issue on time. Simply print your name, old address, and new address, on a postal card and send to: THE JOURNAL OF THE KANSAS MEDICAL SOCIETY, 1300 Topeka Avenue, Topeka, Kansas 66612.

The D. C. Line

Editor's Note: The Editorial Board feels that the Kansas Medical Society would profit by maintaining contact with Representative Bill Roy, both as a source and interpreter of political activities on the national medical front. Accordingly, we are initiating a monthly column written by Dr. Roy. It is hoped that this will not only provide the service intended, but invite a response of readership either through the JOURNAL or to Dr. Roy directly.

This is the second of a two-part series of articles in which I have chosen to examine the impact of the inflationary squeeze on our economy and the resulting pressures upward on hospital expenditures.

Last month, I pointed out that 20 years ago, we were spending 4.5 per cent of the gross national product for health care services—and that today we are spending nearly 8 per cent—and that in my estimate we are going to spend more.

Two questions erupt at this point: (1) How much more will need to be spent; and (2) How will the amount be determined. We know that although the American people are willing to pay a great deal for good health care, as a society we are not going to spend 50 per cent of our gross national product for health care services. We may spend 15 per cent someday, but there must be a ceiling somewhere.

As a physician and as a congressman, I place great value on health care services. I want the maximum amount of money that this society will allow to flow into health care services. And I want very much that people will receive as much good health and longevity as the determined amount of money can buy.

Because of these biases, I would like to see our society determine informally—as contrasted to formally—how much money it will spend for health care services. The only way to assure this is *pluralistic financing* of health care services, *i.e.*, the continued use of private health insurance versus having the federal government pay for all or nearly all of health care services. It is my judgment that if we look to the federal government, either to trust funds or to the general funds, for the financing of health services, we simply will not have enough dollars to pay for the quality of health care the American people want and expect.

The challenging question which evolves is: How to develop a cost containment system which would accomplish the following:

1. Leave the financing of health care largely in the private sector in order to assure adequate financing.
2. Permit individual institutions the freedom to operate efficiently.

3. Does not override quality or make health care services less available or less accessible.

Such a system, I believe, can be developed on five principles:

1. The program should be developed in an evolutionary manner and should begin now, prior to the passage of a National Health Insurance law (which I anticipate will consist primarily of private third-party payment for services).

2. Decentralization. The program should be decentralized. While national guidelines and requirements will be necessary, the application of same and judgments on the guidelines should take place throughout this diverse nation. Such decentralization is the key to the feasibility and reasonableness of any such system.

3. Any such system must be competent. It must have adequate numbers of adequately trained and experienced people.

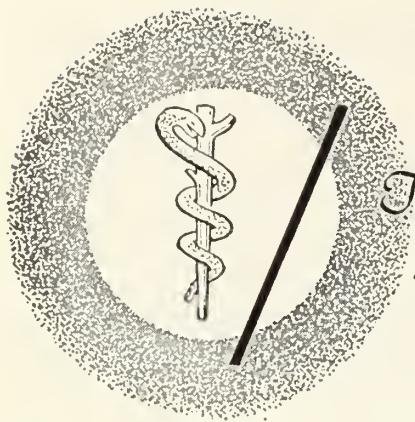
4. The cost containment program must be based on a good planning and development program. The program should assure the proper location of health care institutions and further assure that such institutions are providing the right services to the people requiring those services.

5. Health care institutions should have to look to only one body for any extra-institutional decisions.

These problems, so stated, and their companion solutions must be subjected to the legislative process and the accompanying debate among legislators and health professionals alike.

Carefully drafted legislation may provide the underpinnings for the continuing development of solutions to these problems, which in turn will contribute to our ability to serve.—W.R.R.

Letters to VOX DOX should be addressed to the Vox Dox Editor, Journal of the Kansas Medical Society, 1300 Topeka Avenue, Topeka, Kansas 66612.



The Kansas Press Looks at Medicine

Unwanted Help

Congress is under considerable pressure to do something about improving health care, not only for the needy and the aged but for all citizens.

In recent days we have seen several silly statements concerning the nation's health care. For example, the President in submitting his plan says it would boost federal spending by \$5.9 billion but could be financed without a tax hike.

Certainly, it could. All the government has to do is print more money and buy more red ink. The proposed budget is \$10 billion in the red already, what's a few billion more?

Then from the other extreme is the millionaire Sen. Edward Kennedy who adopts the position that total medical care at the taxpayers' expense is the God-given right of every American citizen. He seems to think that the government will give this health care, complete with diagnosis, forms, etc., whether a person wants it or not.

In recent years we have seen Uncle Sam enter the health care field with the results that costs have skyrocketed, regulations increased seven-fold and the actual quality decline.

The government interference has cost both the federal establishment, private citizens and insurance companies millions. Doctors have become frustrated by rules and inundated by paperwork when they could be treating people.

Now, the current attempt by the Nixon administration, which is obviously on the defensive, is to make sure all citizens are covered. Employers will be forced to carry insurance and pay at least 75 per cent of the

premiums. Individuals will have to pick up the other 25 per cent.

This proposal actually reduces private plans to one level, the government level. In the past, that has meant more money. If Congress allows this to happen, it will be coddling the bureaucrats and boosting inflation.

Once again Uncle Sam will be doing for us what we could do better for ourselves.—*Ottawa Herald*, Ottawa, Feb. 14, 1974.

MAST Program Incorporated

The bugle call for the calvary as it rides down to the rescue of pioneers has become the more modern chop, chop sound of a helicopter in eastern and central Kansas.

Monday marked the official beginning of Fort Riley's MAST (Military Assistance to Safety and Traffic) program. This program is geared to provide military helicopters and paramedical personnel in response to civilian medical emergencies when requested by law enforcement officers, hospital administrators, physicians or responsible individuals at the scene of an accident.

The designing of the program is to assist but not replace civilian type operations within a 100-mile radius of Ft. Riley. There are 6 medevac helicopters and 50 military persons on alert status 24 hours a day.

So far there are MAST systems operating in Texas, Colorado, Washington and Idaho besides Kansas. Eight more states are now becoming involved in the MAST system.

The type of problems encountered by MAST is as different as sounds emitted by the bugle and the helicopter, but to the persons in distress the throbbing sound of the helicopter will bring welcome relief.—*Newton Kansan*, Newton, Feb. 13, 1974.



Personalities—IN KANSAS MEDICINE

The Samuel J. Crumbine Award, the highest honor bestowed by the Kansas Public Health Association, was given **Floyd C. Beelman**, Topeka, for his leadership in public health during the past 40 years.

Harry R. Draemel, Salina, led a discussion of drug-related problems at an open public meeting in Onaga recently.

A cancer education program consisting of two films and a question and answer period was recently conducted by **Donald M. Holsinger**, Pittsburg, for the benefit of high school girls and their mothers.

Francis J. Nash, Kansas City, has resigned as Secretary of the Kansas Board of Healing Arts, the position he held since the Board's inception in 1957.

Announcing retirement from private practice are **Frank K. Bosse**, Atchison, and **Roswell E. Capsey**, Centralia.

Gerald R. Kerby, Kansas City, was the featured speaker at the annual meeting of the Northeast Kansas Lung Association. The topic was, "Recent Advances and Future Needs in Lung Disease."

The 1974 Taylor Manor Hospital Psychiatric Award was bestowed on **Karl A. Menninger**, Topeka.

Hugh H. Boyle, Augusta, was the speaker at a recent meeting of the Butler County Medical Society. His topic was, "Pulmonary Cytopathology."

Ellis B. KcKnight, Alma, delivered a talk on pioneer medicine to students of Harveyville schools.

Kaw Valley Heart Association honored **Emerson D. Yoder**, Denton, with a special recognition for his distinguished service in the field of medicine in Kansas.

George S. Bascom, Manhattan, addressed the annual Student Nurses Association convention in Salina. The topic concerned the dying patient.

"Alcoholism," was the topic of a presentation by **Max E. Teare**, Garden City, delivered to members of the departments of health and law enforcement agencies in Grant and Kearny counties.

Delbert L. Larson, Hiawatha, was guest speaker for the Brown County Association for Retarded Citizens.

Ann H. Applebaum, Topeka, was elected president of the Central Neuropsychiatric Hospital Association for 1974.

The Kansas Medical Society—1973-1974

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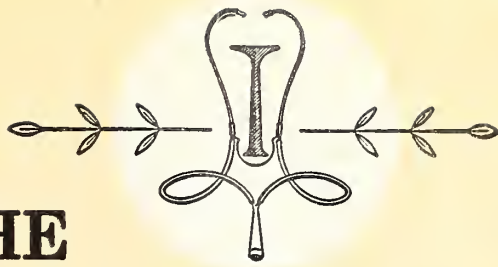
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Resolutions



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Predominant
psychoneurotic
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Associated
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Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

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respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem sounds like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) provides relief for both—as excessive anxiety is reduced, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the anxiolytic effect of Valium is pronounced and sustained. This means that improvement is usually apparent in the patient within a few days rather than in a week or

two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

caution because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Contraindications: If combined with other psychotropics or anticonvulsants, consider the cumulative pharmacology of agents employed; drugs such as phenothiazines, sedatives, barbiturates, MAO inhibitors and other antidepressants may potentiate sedation. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle



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in psychoneurotic
anxiety states
with associated
depressive symptoms

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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The JOURNAL of the KANSAS MEDICAL SOCIETY

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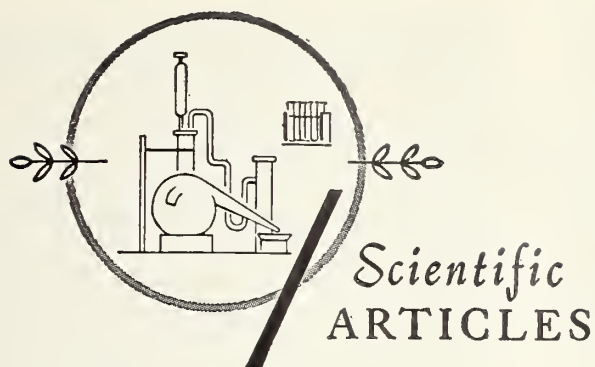
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Auscultatory Percussion

A New Aid in the Examination of the Chest

JOHN R. GUARINO, M.D., F.A.C.P., *Topeka*

PHYSICAL FINDINGS in the chest examination may often be normal or equivocal in the presence of sizable lung densities that are apparent only in the roentgenological examination. The limitations of the physical examination of the chest and the ready availability of the chest x-ray have unfortunately resulted in growing neglect and de-emphasis of the physical examination. The chest x-ray and the physical examination are complementary diagnostic procedures. They are not mutually competitive, and one examination does not replace the other. To improve the efficiency and acuity of the chest examination, a new method of auscultatory percussion (auscopercussion) is described which has proved simple, practical, and accurate, and is recommended in the routine examination. It was developed by the author primarily to facilitate the chest examination of uncooperative and debilitated patients. The technique has also been valuable in detecting lung densities and consolidations which could not be detected by conventional methods of examination. Often, it has been the only positive physical finding in the presence of viral or atypical pneumonias, and in tumors and deep masses.

Technique

With the patient standing or sitting, the examiner stands or sits behind or on the side of the patient and directly percusses over the manubrium sternum, by tapping lightly with the tufts of the distal phalanx of the

index or middle finger of one hand while listening with the diaphragm piece of the stethoscope held in the other hand and applied to the posterior thorax. Percussion is applied lightly and intermittently with equal intensity over the same area of the manubrium, while the stethoscope explores both lung fields over the posterior thorax to detect differences in sound transmission. It is necessary that the stethoscope be applied alternately and methodically from one side of the chest to the other on

Described is the method of auscultatory percussion (auscopercussion). Often it has proved the only positive physical finding in atypical pneumonia and in the detection of masses beyond 5 cm in depth.

the same planes and at corresponding anatomical areas from apex to base, to provide an accurate comparison of sound transmission.

Discussion

In a normal lung, sound waves generated at the percussion site over the manubrium will be transmitted through the lung without impairment, and will be of equal intensity at comparable areas of the chest, producing a resonant tone. An area of increased density, as infiltrations, consolidations, atelectasis, tumors, pleural thickening and effusions, will lie directly or be interposed between the source of the sound waves anteriorly at the manubrium and their reception posteriorly, and will form an effective barrier to the transmission of the

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sound. The intensity of the sound is proportional to the square of the amplitude of the sound waves.¹ The amplitude of vibrations upon reaching the different and more dense media will be diminished, and thus transmission of the sound will be blocked or dampened,² causing a distinct and unequivocal difference during auscopercussion, producing a dull tone. It is preferable to use the diaphragm and to avoid pressure of the stethoscope, which would compress the subcutaneous tissue and increase the tissue density causing a functional impairment of sound transmission. This effect may be significant and is more likely to occur with the bell-piece. The heart offers no interference to the sound transmission, as would occur if the procedure were reversed by percussing the posterior thorax with anterior auscultation.

As an example, it was possible to detect a metastatic lung lesion in a patient with hypernephroma. Roentgenological measurements placed the lesion 10 cm in depth with an area of 4 x 5 cm. The measured area of dullness by auscopercussion was approximately 5 x 6 cm. The results from conventional methods of examination were normal. There have been instances where the clinical impression of bronchopneumonia was strongly suggested by fever, cough, purulent sputum, scattered fine and medium moist rales. Conventional percussion of the chest was commonly normal where areas of dullness would be elicited by auscopercussion.

The technique of auscopercussion as described defines and clarifies the findings of conventional percussion. The method has been most useful as an adjunct in the routine chest examination in evaluating equivocal findings and confirming negative findings.

The intensity of a sound is inversely proportional to the square of the distance from the source of the sound.³ Uncontained sound waves disperse and spread widely from their source, and make it difficult to detect small or deep lesions by conventional percussion. Although percussion is invaluable in the examination of the chest, the limitations are well known.⁴ A lesion or consolidation that does not extend to the surface of the lung, or is covered by a layer of air-containing lung more than 5 cm thick, would be difficult to demonstrate by percussion. Also, a lesion less than 3 cm in diameter is unlikely to cause any change in the percussion note. In addition, the examiner should be aware that errors may occur in the interpretation of dullness by percussion, which may be the result of the distance and position of the examiner from the sound source, rather than of a lung density which may not exist. That possibility may be corrected by standing directly behind the patient during percussion, equidistant from the vibratory source.

In auscopercussion, as described, the tube of the stethoscope contains and prevents dispersion of the sound waves,^{1, 3} and markedly increases the sensitivity and accuracy of the examination independent of the distance or position of the examiner.

Auscopercussion is not a new procedure. It was introduced by Laennec, and is adapted especially to outline various solid and hollow organs.^{4, 5} The stethoscope is placed upon the part to be delineated and the examiner listens while percussing from the periphery toward the chest-piece. The sounds will become distinctly louder when the boundary of the organ is reached. The technique is commonly used to outline the left border of the heart. In the place of percussion, there are modifications in the production of sound vibrations by other means, such as stroking the skin, using a tuning fork, or rubbing the fingers. Gairdner's coin test is another application of auscopercussion that was used specifically to detect pneumothorax. The known procedures of auscopercussion as mentioned were not designed nor have they been suitable for the detection of lung densities.

Although the limitations and possible inaccuracies of the new procedure of auscopercussion as described have not been fully explored, these have not been significant. The method may be very sensitive, and it is suggested that the examiner not be misled by minute or equivocal changes in sound transmission. In an emphysematous chest with increased anterior-posterior diameter, when the thoracic cage is fixed and bony, or when percussion is too intense, sound transmission may be shunted through the bony skeleton rather than through the lung parenchyma, and dullness may be masked.

Summary

The technique of auscopercussion has improved the accuracy and efficiency of the chest examination, and is a valuable supplement to the conventional methods. It is simple, practical, requires minimal cooperation of the patient, and is recommended as part of the routine examination.

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Hypnosis in Psychiatry

The Clinical Use of Hypnosis

MARTIN ELLIOT SODOMSKY, M.D., *Topeka*

HYPNOSIS has been used by physicians for many years. It was used much less when Sigmund Freud spoke out against it as far as utilizing it for psychotherapy. Also, hypnosis had gained a bad reputation because of its use by entertainers, who employed it in such a way as to scare the general public. In recent years, however, hypnosis is once again being used more frequently and the author would like to report on its use in the private psychiatric practice.

Hypnosis was utilized as a therapeutic tool for the relief of anxiety and for the control of smoking and weight reduction. It was also used as an aid for psychotherapy, but this report will not include a discussion of this particular use. The author also used hypnosis for treatment of analgesia, but not to the extent that the results obtained could be reported.

Methods Employed

The hypnotic methods employed were those which have been described by Wolberg,^{1, 2} in his various books and workshops. I have also used the methods described by Spiegel,³ particularly for the control of smoking and weight reduction. In all of the methods used, it was found that the induction period need not last more than 10 to 15 minutes. This time can be shortened as both the patient and therapist become more experienced in the particular hypnotic induction employed. After administering the hypnotic induction for one, two, or three sessions, the patient is taught to utilize self-hypnosis. The patient is asked to "carry the ball." This saves both time and money for all parties involved.

Results

Anxiety Relief

Hypnosis was found to be most effective for relieving anxiety. On practically all of the patients on which it was used, it provided considerable relief and relaxation. After its continued use, the amount of tranquilizers that had to be prescribed was reduced considerably. On some patients, following several sessions of hypnosis, the tranquilizers were discontinued completely. Besides

relieving patients suffering from general anxiety, hypnosis was also found to be very effective for relieving the symptoms of spastic colon. On two patients in particular, considerable relief was obtained even though prior to that time they had achieved very little relief using various forms of anti-spastic medications.

Smoking

The induction utilized was the arm levitation method advocated by Spiegel.³ Approximately one-third of the

Hypnosis was used in private psychiatric practice for anxiety relief, smoking, and weight reduction. It was found to be easily administered and very acceptable to all patients.

patients in this group were able to stop smoking completely after being hypnotized several times and then using self-hypnosis. The suggestions given to the patient while in the trance were positive suggestions, such as maintaining their health and making a commitment to protecting the body. Negative suggestions, such as prohibiting smoking, were not given as they were found to be ineffective. Patients who were "failures" were advised that they should try again after a certain period of time. They were also requested not to advertise their failure as that might discourage others who might be able to benefit from hypnosis.

Weight Reduction

Again, the hypnotic induction used was that described by Spiegel.³ Successful results were achieved in approximately one-third of the patients seen. Although these statistics are not earth-shaking, they are considerably better than the results obtained by other weight-reduction methods. In addition to hypnosis, the patient was also asked to diet and was also advised to increase his daily exercises. I have found the book, "Aerobics" by Kenneth Cooper, M.D., to be particularly helpful as far as suggesting exercises for the patient.

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Discussion

Hypnosis was found to be very effective in relieving anxiety. Its effectiveness was less, but was certainly significant with respect to weight reduction and stopping smoking. In general, most of the patients found the hypnotic experience to be very pleasant and relaxing. They jokingly stated that they were always disappointed when the trance was terminated, because it felt so good. One misunderstanding that repeatedly occurred during the initial session was that hypnosis was similar to sleep. It was necessary to explain to the patients that hypnosis was not sleep, but was a state of intense concentration. Despite this explanation, many patients were disappointed that they did not go completely unconscious while they were in a trance. However, they were convinced that a trance was achieved by the observable fact that their arm levitated during the procedure. This was one reason why I found the arm levitation induction to be most helpful. Another reason was that it is less time-consuming. Other induction methods, such as asking the patient to concentrate on a spot on the wall or concen-

trate on the idea of sleep, were equally effective as far as producing a trance state, but the patients often were not convinced that they were hypnotized.

Summary

Hypnosis is now being used more frequently. In this report, hypnosis was found to be an effective tool in the treatment of anxiety, and particularly for the tension states that develop in spastic colitis. It was also found to be helpful in weight reduction and assisting a person to stop smoking. It is a method which does not require more than 30 minutes of the physician's time per hypnotic session and, by teaching self-hypnosis, two or three sessions might be sufficient, allowing the patient to "carry the ball" afterwards.

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ASPEN MUSHROOM CONFERENCE

The Aspen Mushroom Conference is designed for physicians, scientists, and amateur mycologists interested in the identification and toxic properties of mushrooms. The conference is sponsored by the Beth Israel Hospital, Denver, and the Colorado Mountain College, Glenwood Springs, Colorado, and will be held at the Inns of Court, Snowmass-at-Aspen, Colorado, August 26-30, 1974.

An outstanding group of Colorado and visiting mycologists and physicians will serve as a faculty for the conference. Didactic sessions and refresher courses on mushroom identification will be held in the early mornings and late afternoons at the novice and advanced student levels. Group discussions on advances in the diagnosis and treatment of mushroom poisoning will be offered to physicians and others interested in this subject. Generally, in the late summer, the Snowmass mountains are richly productive of a wide variety of mushrooms. Experienced leaders will conduct daily forays into the surrounding mountains to collect edible and poisonous species and study their field characteristics.

For further information contact: Aspen Mushroom Conference, Beth Israel Hospital, W. 17th Ave. & Lowell Blvd., Denver, Colorado 80204 (1-303-825-2190).



William Heath Byford, 1817-1890

RONALD D. GREENWOOD, M.D., *Boston, Massachusetts*

WILLIAM HEATH BYFORD was born in Eaton, Ohio, on March 20, 1817. At the age of nine, he was forced to leave school and find work in order to get money for the family, because his father, Henry, was dying and William was the oldest of the three children. At 14, he was living in Vincennes, Indiana, and began an apprenticeship in the craft of tailoring, from which he emerged six years later as a tailor. However, this was not to his liking. His real education was yet to begin. Much as Lincoln did about the same time, Byford studied on his own; he bought and borrowed books, studied English, natural history, physiology, chemistry and even languages—Latin, Greek, and French. He had decided to become a physician—a profession for which he was as qualified as anyone else in his day. He began his medical studies with a local physician, Dr. Joseph Maddox, and through considerable hard work, in slightly over a year, completed his studies. In 1838, the State of Indiana examined young Byford, then 21 years of age, and licensed him to practice medicine. And, that was what he did until 1857. However, Byford felt this was not enough, and even though he already had a license and was practicing, he attended the lectures at Ohio Medical College in Cincinnati, and received the degree from there in 1845.

Although his professional career in medicine began in 1838 in Owensville, Indiana, Dr. Byford did not begin his academic career until 1850, when he began teaching at the Evansville Medical College in Indiana. He filled the chair of Anatomy from 1850 until 1852, and then that of professorship of the Theory and Practice of Medicine, until 1854.

From the Department of Pediatrics, Irwin Army Hospital, Ft. Riley, Kansas, and the U.S.A. Health Clinic, Schilling, Salina, Kansas.

The opinions expressed herein are those of the author and not of the U. S. Army.

In 1857, he moved to Rush Medical College in Chicago, to occupy the chair of Obstetrics and Diseases of Women and Children. In 1859, Byford, along with the six other great men, founded the medical department of Lind University (later to become known as Northwestern University Medical School). He resigned from Rush and accepted the first chair of Obstetrics and Diseases of Women and Children at the new medical college and at Mercy Hospital. When the several professors resigned from Rush to go to "Lind," they took with them Mercy Hospital.

Dr. Byford served in this position from 1859 until 1879, when he returned to Rush to fill a chair limited to gynecology. Arey tells why he left the Chicago Medical College:

The reason for his taking this step was that appointments at Rush and the Women's Medical College, close together on the west side could be managed conveniently, whereas posts at the Chicago Medical College and Women's entailed too much time lost in transportation. A small benefit to the Chicago Medical College from the experience was that its department soon underwent a three way split into Obstetrics, Gynecology and Pediatrics.

Byford's accomplishments were mammoth.

Byford was a founder. He organized the American Gynecological Society, the Chicago Gynecological Society, with Nathan Smith Davis, J. H. Hollister, H. A. Johnson, Edmund Andrews, and Frank Billings; was associated with Franklin H. Martin in organizing the Postgraduate Hospital in 1888, with Davis, Johnson, Andrews, Hollister, Isham, and Rutter founded what would become Northwestern University Medical School in 1859, and in 1870 founded the Women's Medical College. In addition, founding of the Mary H. Thompson Hospital was largely due to his efforts and assistance.

Byford was a leader. He was vice-president of the American Medical Association in 1857, one of the first



William Heath Byford

vice-presidents of the American Gynecological Society, and in 1881 was elected its president; he presided over the Chicago Gynecological Society. He was, as well as a teacher in his specialty, president of the faculty and president of the trustees at the Women's Medical College.

Byford was a writer and editor. He was an editor of the *Chicago Medical Journal*, and became chief editor of the *Chicago Medical Journal and Examiner* when those two periodicals merged. In addition, he had been editor of a medical journal at Evansville in his early years.

He was the first to write a medical textbook in Chicago; the year was 1864. He authored the following:

Chronic Inflammation and Displacements of the Unimpregnated Uterus, 1864, two editions.

The Practice of Medicine and Surgery, applied to the Diseases of Women, 1856, four editions.

Philosophy of Domestic Life, 1869.

The Theory and Practice of Obstetrics, 1872, two editions.

Byford was one of the great gynecologists. His contributions included description of the operation of Caesarian section (performed twice in 1847), introduction of surgical instruments and improvements of others, introduction of new methods of manipulation and treatment in diseases of women. He was one of the first to observe that the contents of pelvic abscesses often become encysted and undergo subsequent alterations without being discharged, and to advocate laparotomy for the relief of rupture of the uterus and in cases of extra-uterine pregnancy, and to use ergot for the expulsion of fibroid tumors of the uterus, and to advocate rectal drainage of pelvic abscesses already opened into the bowel.

And, could there be anything else Byford did? Yes, he was an avid reader of current medical literature, including the French and German. He was also a life member of the British Gynecological Society.

A few remarks must be made in order to point out the significance of the founding of the Women's Medical College by Byford.

The reader must be reminded that the year was 1870. It was not until 1919 that the 66th Congress approved the Nineteenth Amendment, which did not become effective until 1920. In 1870, many religious and political attitudes prevailed. Women were thought to be mentally and physically inferior to men. Very few people felt that they were capable of engaging successfully in any business or profession. The medical profession instead of being more understanding and tolerant as the case usually is, was at times even more prejudiced. The reasons here were several. Victorian concepts of modesty and morality prevented the presence of women from physiological discussions and dissection of the human body. Even if they could be considered suited for other tasks, these areas were most "unladylike." It was in 1852, that the Illinois State Medical Society censured the Rush Medical School for admitting Emily Blackwell, sister of Elizabeth, so she could not complete her studies. In 1869, the Chicago Medical College admitted women at the bidding of Dr. Byford. However, the male students petitioned at the end of the school year that the woman be dropped. This was not a decision of prejudice according to their protestations. Certain clinical material and observations had been omitted by the faculty because it would not have been proper to mention or show it in front of women. If these particular actions seem foolish, the general population's attitude made these seem liberal indeed. One man gave his body to Rush for the purposes of anatomy; there was one stipulation: "I desire that my remains shall be preserved any indignities—and that no female medical students shall work over me."

Nathan Smith Davis opposed the admission of women to Chicago Medical College, but approved separate institutions for them. He also fought against admission of women to the American Medical Association. It is interesting that Davis was completely in touch with his times in this area, while he was so far ahead in other concepts of medical education. Davis is considered the "father of the American Medical Association," and was the chief founder of the most progressive medical school of the day.

The Mary H. Thompson Hospital, for indigent women and children, had been established in 1865, and its manager, Miss Thompson, applied without success to Chicago Medical College and Rush for permission to complete her education. In 1869, she was one of the four women accepted at Chicago Medical College. She received her degree because she had done other work, but the other three women were left stranded. Thus, Byford proposed that with the hospital, there should be a women's medical college. Classes began in 1870, but both hospital and college were destroyed in the 1871 fire. Afterwards, they did continue.

It was a brave thing indeed that Byford did. In 1890, the Women's Hospital Medical College was expanded in its faculty, and in 1892, Northwestern University made the college a department of the university. But by 1902, the college was closed, and women were admitted to Northwestern University Medical School.

Arey remarks of Byford:

Standing at the top of his profession, Byford must be recognized along with Sims, Emmett, Kimball, Peasley, and Thomas, as father of the American system of gynecology; all of these pioneers blazed their path through an untrodden wilderness. He was a ripe scholar and an intellectual giant.

The magnificence of Dr. Byford's successes must be set against the conditions under which they were achieved. His only patrimony was physical vigor and a dogged tenacity. His education was self-conducted; he became great because he conscientiously developed the latent talent with which Nature had endowed him. He ranked not only among the most distinguished members of his profession, but also among the most cultured and beneficent characters of his time. Some of his medical publications were unique and invaded new territory; the material had to be drawn from his own experience and study.

Even with all this, Byford was modest, gentle, kind, helpful, and sympathetic. He was dedicated to teaching, and in that role was amazingly popular with his students and yet thorough in his instructions.

Byford married Mary Anne Holland, the daughter of Dr. Hezekiah Holland, in Mount Vernon, Indiana, in 1840, a marriage which produced four children. In 1873, eight years after his wife's death in 1865, he married Miss Linn W. Flersheim, a marriage which

produced one child. The sons, William H. Byford, Jr., of Minneapolis, and Henry T. Byford, of Chicago, also became physicians.

On May 21, 1890, Byford suffered a fatal attack of angina, a disease he had for some time. He was active until his death. Three days before, he performed a laparotomy, and on the day of his death, he had gone to work as usual.

At the time of his death, many eulogies were given for Byford. Arey records one of these:

Thus at seventy-three, passed one of the noblest men of our day—an almost ideal physician and medical counselor; the pioneer of medical education for women of the West; one who could be depended upon in any emergency; a modest and strong gentleman, charitable to all and loved and admired by thousands.

Acknowledgments

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Mr. William Beatty and Miss G. Price allowed the use of the historical facilities at the Northwestern University Medical School Library.

Medical-Legal Page

(Continued from page 228)

who should bear the loss of their failure to administer the glaucoma test, the concurring opinion pointed out that the physicians, because of their malpractice insurance, were financially better able to bear the loss than was the patient.—*Helling v. Carey* (Sup.Ct.Wash., Docket No. 42775, Mar. 14, 1974) Reference: Darrell L. Havener, Esq., Watson, Ess, Mashall, and Enggas, 1006 Grand Ave., Kansas City, Mo. 64106.

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Vox Dox

Vox Dox Editor:

The medical genetics research team in the Department of Preventive Medicine at Creighton University School of Medicine has received funds for the study of Aryl Hydrocarbon Hydroxylase (AHH) in patients from families prone to lung cancer. The inducibility of AHH in lymphocytes has been shown to be a significant genetic marker in the study of 50 patients with lung cancer compared with appropriate controls by Kellermann and Shaw (*New Engl. J. Med.* 289:934, 1973). Needed are studies of close relatives from families prone to bronchogenic carcinoma. We believe that this study could harbor important information for carcinogenesis as well as for cancer control.

We will greatly appreciate receiving information about patients and/or their families when lung cancer appears to be increased in these families. AHH as well as pedigree verification will be performed and there will be absolutely no charge for any of these services. In addition, a detailed report of all findings will be forwarded to the concerned physicians at the completion of these studies. Your assistance in this study will be deeply appreciated by all of us.

HENRY T. LYNCH, M.D.
Professor and Chairman
Dept. of Preventive Medicine
& Public Health
Creighton University
Omaha, Nebraska 68178

Vox Dox Editor:

An interesting item by Dr. J. B. Deisher on the "Fertile Period After Vasectomy" (*Science*, August 28, 1970, pp. 816-817) contained some valuable information regarding vasectomy and fertility.

His reference to "sperm stored in the seminal vesicles" (p. 816, emphasis added), however, seems at least misleading, if not entirely incorrect. I doubt very much that Dr. Deisher personally verified the presence of spermatozoa in the seminal vesicles. Instead, he appears to have merely repeated the myth represented by the etymology of the name of these sacculated structures: the Latin *vesicula* is a diminutive of *vesica* and means "small bladder," while *seminalis* is an adjective related to *seminium*, that is, "semen."

Nevertheless, although some spermatozoa may be occasionally found in the seminal vesicles, their primary function is secretory, as the epithelium with which they are lined produces a small quantity of ascorbic acid, certain amino acids, ergothioneine, and so forth, as well

as large amounts of fructose. Of course, in his impressive *Dictionary of the Biological Sciences* (New York, Reinhold, 1967), Dr. Peter Gray defines the seminal vesicle as "a vessel for the storage of sperm" (p. 566). But, as my correspondence with Dr. Gray indicates, this assumption remains unsubstantiated (see my "Ethics in Ancient Egypt," *Social Science*, January 1969, p. 51). In 1966, Richard Stiller wrote: "Some authorities believe that the ampullae of the vesicles store sperm until they are released at ejaculation, although this has been questioned" (*Illustrated Sex Dictionary*, New York, Health Publications, 1966, p. 89). More definitively, Dr. Arthur Guyton has stated the following: "From early anatomic studies of the seminal vesicles it was erroneously believed that sperm were stored in these vesicles. . . . However, these structures are only secretory glands instead of sperm storage areas" (*Textbook of Medical Physiology*, ed. 3, Philadelphia, Saunders, 1968, pp. 1121-1122).

PANOS D. BARDIS, Editor
Social Science
The University of Toledo
Toledo, Ohio 43606

NEW MEMBERS

The JOURNAL takes this opportunity to welcome these new members into the Kansas Medical Society.

James W. Bruno, M.D.
1133 Kansas Plaza
Garden City, Kansas 67846

David H. Huffman, M.D.
4801 Linwood Blvd.
Kansas City, Missouri 64111

Cheng T. Cho, M.D.
K.U.M.C.
Kansas City, Kansas 66103

Jose J. Mimoso, M.D.
609 North 5th St.
Garden City, Kansas 67846

John W. Crispen, M.D.
611 North 5th St.
Garden City, Kansas 67846

David L. Palmer, M.D.
5111 East 21st St.
Wichita, Kansas 67208

Billy A. Gillen, M.D.
8802 Birch Lane
Prairie Village, Kansas
66207

Eleanor M. Santiago, M.D.
K.U.M.C.
Kansas City, Kansas 66103

George E. Greenberg, M.D.
St. Catherine Hospital
Garden City, Kansas 67846

J. E. Schlicher, M.D.
3244 E. Douglas
Wichita, Kansas 67208

The President's Message

The 115th Annual Session of the Kansas Medical Society ended last month. Most of the old aura and distinction was rekindled at this meeting that has been so conspicuously absent from many of the sessions during the past 15-20 years. A feeling of good fellowship was present; a sense that a superior program was being offered to both doctors and the paramedical personnel prevailed. This did develop into a program of outstanding speakers, surprises, total interest, and a feeling that those present were glad to have come.

Paul Harvey, as banquet speaker, captivated the audience with his ready wit and a deep sense of perception of current events. Our 21½-year-old grandson, after upstaging his granddad during the introduction and oath taking, proceeded to take on Paul Harvey by repeating after him one of his satirical remarks—"Whale Blubber"—this coming through clearly on the PA system in his loud, childish voice. According to Warren Jacks' logic, this youngster surely gets all his talents from his grandmother.

In a nutshell, the Kansas Medical Society House of Delegates, on the positive side, voted to:

- support the repeal of the present PSRO law;
- revise the school physical form to include requiring routine urinalysis;
- offer the Governor of Kansas and the Secretary of Health and Environment the services of an ongoing committee of physicians on an advisory and consultative basis;
- encourage local medical societies to initiate out-reach programs for qualified minority students and to encourage them to seek careers in medicine;
- approved a recommendation of resolutions on post-graduate education to be submitted to the Fall House of Delegates for final adoption;
- voted to oppose licensure of doctors of acupuncture and of naturopaths being included in the Board of Healing Arts;
- strongly opposed any federal or state regulation on pre-admission certification of patients.



The following housekeeping chores were considered:

- encouraged medical societies to provide physician membership on nursing home utilization committees;
- encouraged and supported Kansas Foundation for Medical Care in its attempt to do all the leg-work in implementing PSRO;
- the Legislative Committee to meet on a regular basis;
- prescriptions to include the name of medication, dosage, and number of authorized refills.

At the Council meeting following adjournment of the House of Delegates, a position paper was developed at Sen. Dole's request to be presented at the Senate hearings in Washington—our position being largely that of the AMA.

John Blumh

President



Editorial COMMENT

The medical pathway is strewn with numerous well-camouflaged rocks and roots to trip the unwary physician. Even then, he may find that someone has removed the signpost that assured him he was on the right track, and he may be forgiven if he wonders if the journey is worth it. A recent decision of the Washington State Supreme Court (reprinted elsewhere in this issue from *The Citation*, Vol. 29, No. 2) is a reminder to the physician, if indeed he needs any reminder, that his lot should make any policeman happy with his own.

Briefly, a girl of 23 was fitted with contact lenses by one of partner-ophthalmologists. Intermittently over the next nine years (more frequently in later years), she was seen for complaints attributed to the lenses. She was then tested for glaucoma and found to have loss of peripheral vision and severely constricted central vision. Her suit alleged that her visual impairment was due to the ophthalmologist's negligence in failing to test her eye pressure and fields earlier. The defense was based upon the accepted ophthalmological standard that, in the absence of symptoms, routine testing of persons under 40 was not warranted because of the infrequency of the condition in this age group. The judgment of the trial court in favor of the defendants was reversed by the Washington Supreme Court on the grounds that the standards of the profession were not good enough and "it is the duty of the courts to say what is required. . . ."

The principle that a standard of practice acceptable to the profession and at least equivalent to that generally available in the community is the proper, safe, and judicially-qualified criterion of professional conduct has long been a prime source of guidance, protection, and comfort to the physician. A reading of this extract of the judgment must certainly give him pause. It should be noted that both sides agreed that accepted professional standards exempted a physician from the obligation to test patients under 40 for glaucoma. The court held, however, that in this case it amounted to negligence that the test was not given, and its language

leaves little doubt that an ophthalmologist will omit this "simple, harmless pressure test" in *any* patient at his own risk.

In essence, then, a high court has established the precedent that a standard of practice acceptable to the profession and equivalent to (or higher than) that in the community does not protect the physician from a finding of negligence. True, part of the court felt that "liability" was a more suitable description than "negligence," but this will be cold comfort to the physician. With conscious effort to avoid overreaction, we feel justified in viewing this as the displacement of medical standards of proper care in favor of standards imposed by another segment of society—in this case, the judiciary.

We do not contend that this case represents a gross miscarriage of justice. We think (hope, at least) that the ophthalmologists felt some sense of chagrin that this condition had been progressing while under their care. While standards of adequate care may have technically relieved them from responsibility, standards of *good* care, which we are sure they intended to give, could well be expected to have called for this testing somewhere along the line. A patient has suffered damage not through an overt action of the physician but through the failure of a physician to apply his professional acumen to the optimum degree. The point is made that the patient presented no symptoms of glaucoma. We can even imagine that the discomforts which brought the patient in for consultation eight times in 17 months may have established her as a "complainer," which unhappy appellation is often a factor in diverting the physician from pertinent examinations and tests. Perhaps the significant word here is "routine." Although the patient under 40 is at slight risk for glaucoma and not in need of "routine" testing, was this case routine?

But, while the particular specifics of an individual case can generate endless argument, a precedent has been established—and precedent is a happy word to

the legal profession. The fact that this judgment has been applied to an ophthalmological case and specifically in the state of Washington is no barrier to its application in other areas of medicine and geography. The individual physician feels the pressure of another lever on his professional function from an outside source. Unhappily, this may intensify the rancor that has often characterized the medical-legal relationship and which both sides have been working to alleviate.

Apart from the legal aspect of this case is the unfortunate effect it will have in the area of medical care costs. The physician has long recognized that many diagnostic or therapeutic procedures he may use are of minimal value, but he works under the ever-present threat that he may one day have to demonstrate that every possible potentiality of the case was explored. The concept of "defensive" medicine has produced no small amount of concern within the profession. There is a broad spectrum of attitudes. At one end is the physician who denies practicing defensive medicine on the principle that if he must perform tests or therapies of doubtful value because of extra-medical pressure, they constitute a necessary exclusive function and are, therefore, legitimate. At the other end is the physician who frankly accepts the defensive label, blaming its necessity on social forces not of his begetting. Thus they both wind up in the same place and, with their uncertain and inconsistent colleagues in between, combine to account for a significant utilization of medical resources (at appropriate expense), which is no better than tangential in its contribution to the patient's welfare.

It would be hard to find a situation that better epitomizes the conflict between the medical profession's concept of quality performance and the social concept of utilization. There is obvious irony in the fact that the court finds the physicians in this case guilty of *underutilization*. We would like to think that the physician's application of his professional intelligence and motivation can be accepted as the prime determinants of adequate care. To have one of his principal supports displaced is not only professionally disquieting, it threatens him with being the unwilling contributor to a socioeconomic trend he heartily disapproves.

At the moment, the denial of this measurement of medical proficiency is more than just the arbitrary establishment of a new standard for, in fact, the court action offers no new, definitive standard for the physician. The court says it is its duty to act, and in this case it did. But its action leaves other physicians at other times required to perform their professional function with no assurance, short of other judicial action, that their efforts, however conscientiously applied, are "standard."

Ouch.—D.E.G.

Information for Authors

Manuscript Preparation

Manuscripts must be typewritten, double spaced, leaving wide margins. Submit the original, plus one copy if possible.

Titles should be short, specific, and amenable to indexing. A subtitle is frequently used to keep the main title short.

Summary: All manuscripts should include a short abstract which is a factual (not descriptive) summary of the work.

Author Responsibility: The author is responsible for all statements made in his work, including changes made by the copy editor. Manuscripts are received with the explicit understanding that they are not simultaneously under consideration by any other publication. Publication elsewhere will be subsequently authorized at the discretion of the Editor.

Galley Proof: To make extensive changes in the article after the text has been set in type may require an additional cost which exceeds the original. The galley proof is for correction of *ERRORS*, and a rewriting of the article should be done on the original copy *BEFORE* it is submitted for publication.

Drugs should be called by their generic names; the trade names can be added in parentheses if they are considered important. All *units of measure* must be given in the metric system.

References

Bibliographic references should not exceed 20 in number, documenting key publications. Personal communications and unpublished data should not be included. References should be arranged according to the order of citation, and not alphabetically. All references must be numbered consecutively and all must be cited in the text. Use the style of the AMA publications, giving; name of author, title of article, name of periodical, volume, pages, year.

Illustrations

All material which cannot be set in type, such as photographs, line drawings, graphs, charts, tracings (for preparation of tables, see below) must be mounted on white cardboard. All must be identified on the back as to figure number, author's name, and an arrow indicating top. Legends should be typed double spaced on a separate sheet of paper, limited to a maximum of 30 words.

Drawings and graphs should be done professionally in India ink on illustration board or high grade white drawing paper.

Photographic material should be submitted in duplicate as high-contrast, glossy prints. Color illustrations will be accepted for publication only if the author assumes the cost.

THE JOURNAL will assume the cost of B/W engravings and cuts up to \$35 (or 5 cuts). Engraving cost for illustrations in excess of \$35 will be billed to the author.

Tables

Because tables are set by hand, their cost is comparable to illustrations. A reasonable number of tables are allowed without cost to the author.

Tables should be self-explanatory and should supplement, not duplicate, the text. Since the purpose of a table is to compare or classify related items, the data must be logically and clearly organized. The relationship and comparison are established by the correct choice of column heads (captions of vertical columns) and stubs (left entries in horizontal listings).

Each table should be typed double spaced, including all headings, on separate sheets of lettersize paper. Oversize paper should not be used. Instead, repeat heads and stubs on a second sheet for tables requiring extra width. Number tables consecutively. Each table must have a title.

Reprints

A reprint order form with a table covering cost will be sent with the galley proof to each contributor. Since the JOURNAL has no way to provide for reprints, they must be ordered by the author and purchased directly from the printer.

Official Proceedings

1974 Annual Meeting of the House of Delegates

Transactions of the 115th Annual Session of the Kansas Medical Society are published in this issue of the JOURNAL.

The resolutions were referred to Reference Committee A (Lew W. Purinton, M.D., Wichita, Chairman) or Reference Committee B (John A. Segerson, M.D., Topeka, Chairman). The resolutions are printed in numerical order under the minutes of the Second House of Delegates meeting. Resolutions No. 74-29; 74-30; 74-32; 74-33 and 74-34 had been placed on the consent calendar and were adopted at the meeting of the First House, on Sunday, May 5, 1974.

The resolutions which failed to pass are retained in the minutes at the Executive Office, but are not recorded here.

FIRST SESSION

The first session of the House of Delegates met on Sunday, May 5, 1974, beginning at 1:30 P.M. at the Downtown Ramada Inn, Topeka.

The meeting was called to order by Clair C. Conard, M.D., Speaker, who explained the composition of the House and placed some rules before the body, which he said would be followed until such time as the House elected to challenge them.

Minutes of the November 18, 1973 meeting of the House of Delegates were approved.

The House heard the following reports.

The Editor—David E. Gray, M.D.

Your Editorial Board is pleased to call to your attention its financial report which you will find buried somewhere in your manila envelopes, and the fact that it is once more printed in black. This fact is, of course, due to the wisdom, foresight, and munificence of this august body, which statement alone should make us safe for another year. We wish we could feel as safe regarding our other prime source of income—pharmaceutical advertising—which seems to be undergoing a slowly progressive atrophy, but we take bleak comfort in the fact that it is afflicting all journals such as ours, so there couldn't possibly be anything wrong with us. We are still one step ahead of the situation I found recorded in the *Transactions* of the Kansas Medical Society for 1895 by the chairman of the Publishing Com-

mittee, Dr. G. A. Wall. Faced with a total cost of publication of the *Transactions* (which, you may recall, were the fetal form of the JOURNAL) of \$459.20, and apparently a fearless sort, he reports: "To pay the debt incurred in printing we found it necessary to borrow \$225, which, added to the amount in the hands of the treasurer, made the payment complete. This loan was made by the Merchants National Bank of Topeka, which holds the note of Dr. Purdue and myself for that amount." This is to warn you that the Merchants National Bank has had quite enough of the incumbent editor and his notes, and if we should again be in such straitened circumstances, you will be well advised to get an editor of fewer words and better credit.

From the editorial standpoint, while *Lancet* and the *New England Journal* haven't been casting any nervous glances in our direction, we have managed to attract enough acceptable manuscripts that we haven't had to resort to filling our pages with press releases from the Spears Chiropractic Clinic or reviews of new diet books. The good will engendered by our acceptances had approximately balanced the hostility stemming from our rejections, and no editor can ask for more. We are pleased to report that later in the year we shall initiate an annual issue composed of papers from the Wichita branch of the medical school.

The year has produced a satisfying degree of controversy deriving from our Washington connection. The lid hasn't blown completely off the teapot, and the Board, in the highest journalistic tradition, has fought fearlessly in defense of freedom of the press—due in part, no doubt, to the fact that we don't get paid anyway. However, the current situation has produced an obvious change in the political scene and I wish to report, therefore, that the "D. C. Line" is being discontinued, and the opposing teams can now change ends of the field.

Preparing an annual report can be almost as boring as listening to one, but the one pleasure I derive from it is my chance to remind you of your good fortune in having the services of such a person as your managing editor, Val Braun. I am beholden to her in so many ways, but she will delete anything more lavish that I might add, so I'll just say, "Thanks, Val." Our thanks are also due the business manager, but I must remind him that our gratitude is directly proportional to our fi-

financial solvency, so our thanks are accompanied by the admonition, "Keep pedaling!"—pun intended.

Woman's Auxiliary—Mrs. Lucien R. Pyle

It has not been an easy year for you, we know . . . nor for us, partially because of the changing times and public attitudes, which make increasing demands on time and strength . . . partially because of government's encroachment upon the practice of medicine. So, we have learned, as an auxiliary, not to cling too much to your coattails, but have tried to work on our projects and programs with your best interests in mind, recognizing that we should not use our master key too often, though communication is necessary to our survival. We have developed good plans and are delighted to report success in several areas.

"We have the keys (committees) for a better understanding of health; let's use them" has been our admonition during the year. Special emphasis has been given these: (1) AMA-ERF, the key to more loans for medical students, more unrestricted funds for medical schools; (2) the key-chain of membership, which holds us together; (3) the key of communication, a means of unlocking doors to clarifying needs of the physician, auxiliaries, and the community, regarding health; (4) the key of health education, with programs promoting knowledge of health for the public; and finally (5) the key of services which support public need, through action. We have tried to accomplish something in each area.

Inspired by national chairman, Edith Lessenden, we are working toward an amount well over \$18,000, which we feel is a fine record for a new state chairman. Part of this will go to KUMC, the recipient of other donations, this year of \$18,815.15, from all across the country. We should not confuse the two funds.

Though we lost one county membership through lack of communication, our increased membership in other groups will almost make up for the loss. The new President, Dot Meyer, and her chairman will double their efforts to enhance membership in Auxiliary as a unique opportunity for any physician's wife. For this we are grateful.

Through workshops held in the five regions of Kansas, we were able to communicate necessary instruction and guidance to leaders of the member auxiliaries. A new format for the state *Auxiliary NEWS* holds promise of more thorough reading by all the members. We have called attention to ideas, projects and plans, as well as future meetings, all newsworthy items, through this device. Communication progress is also seen in the mutual concern between ours and other or-

ganizations involved with health: the Kansas School Health Advisory Council, the Kansas Council of Women, the Kansas Hospital Auxiliary, and the state departments of Education and Health. We attended meetings, workshops, and seminars held by these groups, to show our interest and also to better prepare ourselves for our big project, the Conference on the Young Family '74.

Yes, that conference, held here in Topeka at Washburn University White Concert Hall, March 1 and 2, was co-sponsored by our two organizations and funded by the Kansas Regional Medical Program and the Medical Society. Special speakers were Lee Salk, Ph.D., pediatrics and psychology, Cornell University Medical School; and Harold Voth, M.D., psychiatrist at the Menninger Foundation. Both stressed the need for better understanding and preparation for the responsibilities that go with the career of parenthood, and agreed that not all adults should be parents. Panels, exhibits, and films broadened our coverage, and we were impressed with the participation, representing 87 communities, many occupations and age groups. Students from high school, college, and Vo Tech, parents (some with babes in arms), teachers, physicians, ministers, coaches, nurses, and workers in many phases of health and education were among the nearly 600 attending Friday evening's session. There were 460 registered for the whole conference, which lasted one evening plus one full day. A good media coverage, two mailings of 6,000 each, fine support by the KMS Staff, and unswerving dedication by the chairman made a difference in the quality of the conference. The panels and their moderators were excellent, and the Steering Committee represented a fine range. Several disciplines, three colleges, and the State Departments of Education and Health were in on the planning. "Please do it again!" was the frequent comment we heard.

The HER van made visits to 6,450 students in 32 school districts in northwest Kansas this fall, telling about careers in health. This spring, Kansas State College, Emporia, and other more eastern communities will host HER.

The LEGS Committee worked for state as well as national legislation this winter, with the chairman and her assistant attending nearly every KMS Legislative Committee session. Support for terminating Phase IV and a much liberalized Nurses Practice Act were of concern.

Our stalwarts in international health have been working with other groups to gather eight tons of drug samples, quilts, clothing, toys, bandages and supplying books, magazines, and hospital material to Project Con-

cern and World Medical Relief. We found that several couples have served overseas on the Hope, with CARE, or in missions in Africa, South and Central America, and Haiti during this last year. It is truly exciting!

Besides raising AMA-ERF funds, a wide variety of keys were used by member auxiliaries in their own projects, such as gifts of food, clothing, and money to state hospital patients, Teen Outreach, temporary lodging for children, and scholarships and loans. These number 50 or more and don't count unlisted funds Kansas physicians give to medical students. Our GEMS program, training for baby sitters, has graduated at least 256 in the five programs reported. Police, fire, health departments, teachers and other professionals help in the training. Other projects include hot meals, ring-a-day, errand busing, adopting grandparents, blood donor workers, and homemaker services. Some give time to alcoholics, others with handicapped children. Yes, our members CARE, a vital part of medical auxiliary.

So, don't forget us; don't ignore us, but use us, lead us. For we are hard working and dedicated, most of us, and my, how we care about you, our doctor-husbands! More than we can express. I'm sure you're familiar with the fact of geese flying in V formation, and being able to fly 71 per cent farther, because of the upholding pressure of the wings of the companions around them. Surely, we can take heart from this lesson of nature, and working together be able to produce 71 per cent more than when we fly separately. Again, our thanks; please keep in touch, always, and God bless you.

**Report of the President,
Kansas Foundation for Medical Care
—Francis T. Collins, M.D.**

See the Official Proceedings, Kansas Foundation for Medical Care.

The Executive Director—Oliver E. Ebel

Thank you for again giving me the opportunity to report on your Society as seen from your Executive Office.

First, this has been a most exceptional and distinctive year. Once more, as I have so often in the past, I want to report on the cohesion that exists in your Society. No one of you can know how many times we request a service from a member and how many times he leaves his practice to do our project. I know this is not true elsewhere to the degree your cooperation exists here. I never see you at committee meetings, on legislative assignments, consulting with your school, talking with members of allied professions, working at peer re-

view, talking to the public—I never witness you doing these things for your Society, but I am proud for the privilege you afford me of being with you.

Of course, we are besieged with problems—more now than ever before—but even in the face of these you are united and therein lies your strength. There are certainly many reasons for this, but let's examine a few.

One is the unbelievable faculty you have for selecting your leadership. Dr. Taylor this year has simply been remarkable. I think this every year of each president, but even among that select group Dr. Taylor stands out.

No president ever gave more of his time to this office. He knows as much about state government as any president we have had because of his years of association with Comprehensive Health Planning. I cannot prove this, but I think more people outside the Society and members contacted him with problems than during any previous year. Dr. Taylor always took time to listen and, more remarkably, he immediately acted to resolve the issue. He continued his interest in the subject until it was solved.

Another outstanding memory I have of this year was Dr. Taylor's involvement of others. He called more meetings of the Executive Committee than in any previous year. It is Dr. Taylor's philosophy that decisions need to be made by all your elected officers—not by only one person.

Dr. Taylor was active in federal legislation and also with our state legislature. He has resolved some delicate problems between members and the welfare agency. One example, Dr. Taylor visited with the district Social Security office and learned there is no Kansas doctor under indictment for Medicare abuse. This is an outstanding record, and congratulations to each of you!

Most of all, we in the Executive Office, and I personally, want to thank Dr. Taylor for his never-ending kindness to us, for his help, and for his absolute dedication to his office.

In a few days, you will have intrusted your Society into the vastly experienced hands of Dr. John Blank. I honestly cannot remember when a president took office with so many years of medical organization experience behind him. Since its inception, Dr. Blank has been everything there is to be with the Academy of Family Practice. Long on the State Board of Health, he has wide knowledge about state government and in the area of legislation. I doubt if the Society has ever had a more knowledgeable doctor.

So, Dr. Blank comes to this office prepared. I happen to know that he has spent endless hours, yes, endless hours for three years planning for the year that lies

ahead. Well, you know this also if you have read his speech. A copy is in your packet. If you have not, this is must reading because he points toward activities of the future.

Dr. Blank let us look at an advance copy. What impresses me most is that his whole desire, his every aim and ambition is for the Society. But you know that is true. You have known Dr. Blank for many years; you know his integrity, you know his ability, and you know his dedication. That is why you elected him President.

And to you, Dr. Blank, the devoted people in your Executive Office will do everything they can to help you carry your ideas into reality.

Speaking of your staff, you now have the greatest team you ever had. The two boys are superb, as you know, and the girls are absolutely everything you might ask for.

I would like to pay tribute to a great many of you, but if I start, there would be no place to end. Thanks to a great many of you, new projects are under way.

We have a closer relationship with the School than ever before.

The Wichita Branch is in operation.

The Foundation is off the ground.

Your Postgraduate Committee will now accredit courses offered in Kansas.

Many committees have met, especially with allied groups.

But I must talk briefly about the legislature. Your Legislative Committee met every week during the session, testified before many committees, and I am happy to report that, after terrible forebodings, you did not have to take very much you did not want.

The pink Legislative Bulletin gives you the score. First, note the bills that did not pass; second, those that did and will become law; and third, subjects the legislature will study during the interim between sessions. I hope you will examine especially the items beginning on the last third of Page 4.

Proposal #17: This is the result of the failure of HB-1962 to pass. This would allow Blue Cross-Blue Shield to mingle funds and to become an HMO. It will be studied by the Committee on Commercial and Financial Institutions, and our hearing is already scheduled for June 10, here in Topeka. I cite this as an example for the Society to take a position on this subject and to find one or more knowledgeable and expressive physicians who will take the time necessary to tell your Society's story.

Proposal #37: I am nervous about the effort to consolidate licensing agencies under Proposal #37, especially since Dr. Nash has resigned from the Board of

Healing Arts and we are short one doctor of medicine. Principally, however, note the six studies that are before the Committee on Public Health and Welfare. Some of these are of major concern to the medical profession because of their impact on the health of the public. We are today at a place where we need to come before the committee armed with facts of overwhelming force, proving we are working not in our selfish, but in the public interest.

Your legislative success over the years has been that one single factor—you have rarely tried for any legislative act that was in your personal interest. You have always fought for the public, and more than ever we need to make this clear at the present time.

This will be an exciting and a challenging year. I look forward to it, and under Dr. Blank's guidance and with your cooperation we can win.

The Constitutional Secretary

Phillip A. Godwin, M.D., Constitutional Secretary, presented the following summary of the membership of the Society for 1974.

Dues paid members	1,664
Emeritus members	103
Leave-of-absence members	20
Personal exemptions	7
Retired members	104
Service members (Armed Forces)	2
Delinquent members	175
Honorary members	3
Total	2,078

This compares with the membership in previous years as follows:

1967 Total membership	1,875
1968 Total membership	1,895
1969 Total membership	1,909
1970 Total membership	1,921
1971 Total membership	1,990
1972 Total membership	2,003
1973 Total membership	2,033

President-Elect—John N. Blank, M.D.

What a great moment in history, to become President of the Kansas Medical Society. Never has the "discomfort index" in the United States, that is the measure of our economic misery, been higher. What's more, our discomfort will get worse, at least for the next several months. We now are into a phase of murderous inflation, spreading unemployment and ever-increasing business and personal bankruptcy, particularly such small businesses and vulnerable enterprises as gas stations, resort hotels and motels, roadside food stands,

and plush restaurants. The only advice I can give you is to use every common sense rule you can think of to try and protect your office. I started practicing medicine accepting chickens, hogs, cattle, and garden vegetables to pay doctor bills. I am sure many doctors may be doing the same again within my lifetime. We, and I am sure many of you in this audience, have planted and are using vegetables from your own gardens.

Now, first let me call your attention to at least three or four goodies, so as to call sharp attention to our state laws.

1. I propose to *sue the State of Kansas*.

So that a physician in Kansas, if he decides that his patient may benefit from acupuncture can refer patients to a non-doctor. "The best acupuncturists are non-physicians," according to testimony heard in committee hearings this year. I propose that something must be done.

2. I propose to *sue the State of Kansas*.

Here, so that physicians may have the benefit of that special package of knowledge known only to naturopathy, forcing them to open a department of naturopathy in the KU Medical School. You all know that the past session of the legislature would not rule against them, as they would not pass legislation abolishing the livelihood of some 12 naturopaths, even though they were prostituting the practice of medicine without the benefit of clergy. No such discipline is recognized under Kansas law.

3. *There's no need here to sue the state of Kansas, or Blue Cross, or Blue Shield* because at last the federal government is doing what no one even thought they would do. This goes back to a brief which cites that a law passed in 1942, whereby it is perfectly proper "for the government to regulate that which it subsidizes." Now that the chiropractor is covered under Medicare, the government wants to know if it works. We now have federal grants up to two million dollars which will go to chiropractors, MDs and others to weight the evidence. But the final verdict will come from one of the National Institutes of Health that does not have a single chiropractor on its staff.

4. *"Not in Our Town" Syndrome*.

Here we have local citizens and whole communities threatening to sue the state of Kansas; lynch the chairman of the Board of Health, or offering rewards for Mel Gray, dead or alive. Legislators, college professors, bankers, stockmen, and whole community delegations defend with equal righteousness the concept of home rule. Americans want more oil, but only if there is no chance that it will spoil their private stomping grounds. Mass opposition to the construction of oil re-

fineries, oil drilling, feedlots, burial grounds for nuclear waste, nuclear power plants, hydroelectric plants, and steel foundries have all been heard in Kansas. This situation not being unique to only the Midwest, certainly private citizens must have the right to protect themselves and their property from non-essential intrusion which presents a clear danger to their health or general welfare. Much of their protest against the development of our available energy sources is based purely on unfounded fears or outright selfishness.

Unless such attitudes can be changed, we face either our inability to provide necessary energy or the government will force local acceptance despite oppositions.

I *propose* that no one is better prepared or in a better position to help solve these problems than the medical profession. To date, after seven years on the Board of Health, we are still seeking and getting no response from private medical sources. Doctors must have involvement in their local community and Kansas politics. It is our responsibility to support and advise elected officials.

Now, for some serious consideration. First, may I call briefly to your attention some of the more important activities I have participated in during the past several years.

1. Seven years on the Board of Health, many years as its chairman, presenting its budget and associating in that capacity with the legislature.

2. I presented proposals for hiring two new men in the office and seeing this accomplished.

3. Proposing a Medical Society Legislative Committee. And it is now finishing its third most successful session with the legislature.

4. Launching, with the help of the Wyandotte County Medical Society, a Leadership Conference.

5. Serving for the past two years on the Admissions Committee for medical students at the KU Medical School.

First, let's consider the Legislative Committee. I truly believe this to be one of the most important committees of the Kansas Medical Society. It has the capacity to take a medical society's position on important legislation which can be timely and represents the best judgment of those in a position to know—namely the members of the committee.

I *propose* continuation of this important ongoing committee with no real change in direction or policy, except possibly for some measure of control and direction from the Executive Committee for radical changes in policies or entirely new recommendation for legislative action.

I further *propose* that definite consideration be taken

by the Kansas Medical Society for fiscal responsibility for out-of-pocket expenses by the physician members of this committee.

I further *propose* that the consideration and selection for this important chairman and vice-chairman be that of the House of Delegates. We elect a Speaker and Vice-Speaker. The chairman and vice-chairman of this committee have an equal responsibility to the membership. Their selection should be that of the House of Delegates.

Second, the *Leadership Conference*. A truly top elite group of people participated in the first leadership conference held at the Crown Center in early February 1974. This talent would have been a compliment to any national meeting. The eye-ball confrontation between Congressman Bill Roy and Bernie Harrison, from the AMA, may never be equalled. This conference, in my belief, should be the most important educational and informative meeting we schedule for the membership. Here we come together to become acquainted with the problems facing all of medicine. I believe medicine can become a political mechanism. These leadership conferences provide the mechanism to compromise our differences. Doctors must have more involvement. We tend to duck politics, and even our state meeting and this Leadership Conference. The schism in medicine simply does not make it possible for all to participate. The schism between elected officers of the Medical Society and the membership, I believe, is basically apathy.

Hence, I *propose* that this important and ongoing Leadership Conference continue; that the committee in charge make every effort to get the very top people available in the political arena associated with the delivery and implementation of health care; that the conference be rotated between county medical societies that have structured medical societies; and lastly, that a budget of \$3,500.00 be approved for the conference.

We may not need job descriptions for the Governor or the Attorney General, however, I believe that the time has now come for reevaluation of the duties for members of our Executive Staff. For the implementation of the Foundation, more clerical help must be hired. I am sure that with a staff of eight, ten or two or three extra other members, job descriptions and reevaluation of present duties are a must.

I *propose* we hire a consultant firm to review the Kansas Medical Society office commenting upon present duties, with possible expansion of duties and projected job descriptions for future employees. This list should be short, a concise checklist of prime duties and essential qualifications.

I am sure that Oliver and no other Kansan has had the length of experience in this matter that he has. However, frankly, if this is done for the good of the office, it will be a helpful blueprint for new employees and a working manual for us rank-and-file members.

Admissions Committee for Medical Students at KUMC for the Past Two Years. In 1972, the admissions to the Medical School of students this year was made at least a democratic process. Six practicing physicians from the state served and participated in the final selection with approximately 27-30 staff people. Here, real conflicts of interest surfaced between the staff people over students. Tempers flared, shouting sessions were enjoyed—and I left feeling that at least we knew what was involved in getting admitted to Medical School.

The Admissions Committee in 1973 was, to all intent and purposes, a "closed shop" affair. The interviewing doctors talked to students without benefit of computer readout or grades, and made their only input by judging students on personality alone, filling out a card and losing all contact and input at this point. Further, two other doctors were invited to sit in on the Admissions Committee, namely Kenny Graham and myself—we, knowing nothing about the students, nothing of the interviews, and receiving computer readouts at the time the Admissions Committee met; we, being two helpless, hopeless doctors trying to evaluate someone's future in medicine.

The Admissions Committee was thus made up of the staff man who chaired the interview committee, interviewing deans, Dr. Mulford, and two ill prepared physicians. In this capacity, eight physicians put in four days at KUMC with no real input into admissions; likewise, no responsibility, or negligible authority for any single student's admission. Something must be done to give the people (taxpayers, parents, and practicing doctors) more confidence in the selection of our medical students.

I *propose* that at least two practicing physicians serve on the six interviewing teams, the interview teams then being made up of two practicing physicians and one staff man as chairman; Admissions Committee to be made up of the six interviewing deans, Dr. Mulford, plus the 18 members of the interview teams; the selection of alternates to equal representation between practicing physicians and staff.

Another inequity I do not consider fair is to discriminate against students who have the scholastic ability to be admitted to the Medical School in favor of minority groups. I do not believe that our Medical School should be forced to lower its standard for admission of

minorities to Medical School. This year, 16 minority students were admitted, only a small percentage being Kansas residents. I am sure the minority quota could be filled among Kansas minorities if they were identified and encouraged at the high school level. "To lower the standard in medicine in order to allow more minority group persons that do not possess the aptitude to be trained can actually be dangerous to the patient they will eventually care for." Further, if such programs as I will propose should become a reality, it must become the obligation of practicing physicians to single out these potential candidates in high school and encourage them toward a professional career.

I am sure there could and should be a compensatory program for pre-medic minority students who have the aptitude, and if given help during their college careers could and would meet the high scholastic requirements for Medical School to be admitted for scholastic excellence instead of as second-class students, as of now.

I *propose* the Kansas Medical Society actively participate and take the initiative and make it one of its prime objectives, lobbying for new legislation to implement compensatory education for minority groups. We have a real need for minority doctors, lawyers, and so forth. So far, to my knowledge, there has been no state or government support for such programs.

Still another inequity I feel strongly about is our lip service to anything political and copping out as a citizen in community affairs. Staying in our offices and seeing patients will never solve the problems facing medicine and the world today. I challenge you in this election year to go to the polls and vote and give direction to elective officials for what we need and stand, and be a living example in our community by actually being a community leader and help according to the cliché, "Pitch In and Clean Up America."

I *propose* elimination of our tax-free status and actually assess our membership—as a starter \$100 per year—for political clout. Big government must recognize the power of individual doctors. In developing a militant position, we will gain recognition. Either you will help, or the system will destroy you. This feeling, and in fact a reality of powerlessness, has paralyzed the medical profession too long.

As an alternative, I suggest that the Kansas Medical Society form a separate corporation establishing a political mechanism within the Society; that it be organized along similar lines to the present Society, with a House of Delegates; the format being solely economic and political. The present Leadership Conference may become the focal point for this state meeting, thus re-

placing the Fall House of Delegates. I know of no reason why present delegates could not wear two hats. I feel sure such a meeting may attract many who now stay at home. I have an honest feeling that things political and economic have a greater appeal to a larger majority of the membership than a social and scientific meeting.

I *propose* that this House of Delegates initiate and direct the Executive Committee to come up with a proposal or alternate proposals for changes in the Constitution, By-Laws, or Charter, thus changing to either two separate chartered organizations or to the status of a business men's league charter.

The question of continuing medical education still comes before this House of Delegates. Many feel that some type of postgraduate education should be a prerequisite for Society membership. It is true that by statutes, the Board of Healing Arts has the authority to demand continuing postgraduate education and, possibly, evaluate what is offered for relicensure. I feel it would be a mistake to approach, approve, or push postgraduate education with only the thought of meeting statutory requirements.

In a real sense, we are now living in an age of consumer emancipation, and it seems to me it is necessary to take this trend seriously. The hue and cry of the consumer is not because of our training or postgraduate education, but the dislocation between the supply and demand for medical services. There is a widespread consumer dedication to the idea that the medical profession is maladjusted to meeting its needs. This has been abundantly verbalized by those who illustrate with individual horror stories and by referring to statistics that do not tell the whole story.

I feel that, somehow, the answer to this and many other problems, such as the shortage of physicians in rural areas, etc., is in part being answered in Kansas with the development of the Family Practice Department at the University of Kansas, Kansas City Branch of the Medical School; Wichita State University, Family Practice Training Department in Wichita; expansion of medical school classes; postgraduate courses put on by the KUMC over the state; involvement of in-state hospitals in residency training programs, such as Garden City and Topeka, with plans to involve several other towns and hospitals. In another part of this speech, I recommended compensation for exceptional minority students during pre-college courses for professional education. It now must be assumed, however, that no magic answer will be found; that we must settle for the use of a number of approaches, each of which may be a partial answer.

I *propose* that this House of Delegates go on record supporting all the ongoing programs and expansion of KUMC; that we energetically support the further expansion of training and residency programs throughout the state, with the state being financially responsible for all new residency and training programs in community hospitals, it being the fundamental responsibility of the medical education system and the state to produce the kind of physicians which our public needs, and to insure the adequacy of their education.

Final Proposal, or Really a Look Ahead: Compulsory Medical Manpower Unionism. The following *proposal* is purposely painted a bleak picture because, in my opinion, what is now happening in New York City and more recently at KUMC should be regarded as fair warning to doctors and others concerned with quality health care. The New York City plague is a classic example of the so-called "process of collective bargaining in action." Federal intervention, if not halted, will in the lifetime of half of the people in this room, in my opinion, impose many of the "orderly processes" on the health industry I am about to describe.

At the present time, we have two bills: House Bill 9730 and House Bill 8677, which, if implemented, will dictate employee relations to public-owned and operated hospitals. It is sponsored by labor and subcommittee chairman, Representative Frank Thompson, and Farm Union official representative William Clay, Democrat of Missouri, respectively, under one of the amendments of the Social Security Act. The federal government now has the authority to license medical and para-medical personnel even if in conflict with existing state laws. At the present time, we have some 68,000 foreign medical graduates in the country, hanging over our heads as a whip to help persuade us to conform or else. Representative Bob Mills told me recently in a one-to-one conference, that these people will in all likelihood be licensed under the federal law. Presently, we have all sorts of para-medical people clamoring for license, including most recently a change in our Nurse Practice Act, which, if implemented as written, would have given them full practice privileges, fulfilling the dream of Shirley Smovak as she describes her type of nurse, "The new breed of high self-esteem, innovative, bright, skillful, energetic, colleague-oriented

nurses." In their drive seeking co-equal status for nurses and physicians, these new people licensed under federal law then would probably automatically become federal employees.

At present, we are confronted only with compulsory health insurance. Next in order will be compulsory doctor and hospital unionism. The hospital at present sees us basically as employees. With unionism comes the automatic installation of compulsory collective bargaining agent, which will result in at least two dozen sweeping new powers and privileges conferred upon HEW; this will result in union organization of the now captive government employees, as I see and study the Clay Bill under the new federal legislation.

I *propose* that the great majority of all foreign medical school graduates be returned at the end of their training period to the countries from which they came and where they are so badly needed (delegates to the AMA to convey this message). Second, that the Kansas Medical Society continues interest in the Nurse Practice Act, removing the ambiguities, spells out in clear language their restrictions, and just as clearly their scope of practice. Frankly, I believe everyone in this room desires a superior Nurse Practice Act that leaves no room for false or double interpretation of its meaning. There still will be room for a "high esteem, innovative, bright, skillful, energetic, colleague-oriented nurse."

All is not gloomy here in Kansas. Although the extreme cold weather in late March probably ruined the fruit crop, the crops in the field and the harvest of wheat and alfalfa in the summer and maize and corn in the fall will be more important to us than all the Watergate and international diplomacy combined. The blunders and tragedies of the past are forcing a reappraisal of the presidency, the Congress and the courts, and even relations among America, its allies, and its adversaries. It is and will be a long hard process, but there is something good shining through in the old democratic fog. It is working its way and searching for truths everywhere.

The Kansas Medical Society can take no credit for the present international turmoil or the bizarre performances in Washington. I for one am proud of the motivation, dedication, and the wholehearted cooperation which we, members of your Executive Staff, have enjoyed from the membership. To be singled out to be your incoming President more than repays 35 years of coming to Topeka for Medical Society functions. My family, and particularly myself, express our gratitude to you for this personal honor. I assure you of my complete dedication to carry on in the tradition worthy of my predecessors.

Buy U.S. Savings Bonds

SECOND SESSION

The second session of the House of Delegates was called to order by the Speaker, Clair C. Conard, M.D., at 8:00 A.M. on Wednesday, May 8, 1974, at the Downtown Ramada Inn, Topeka.

Ballots were distributed for the election of officers, Speaker, and Vice-Speaker.

The following results of the election were reported:

PRESIDENT-ELECT: John W. Travis, Topeka

FIRST VICE PRESIDENT: Emerson D. Yoder, Denton

SECOND VICE PRESIDENT: John D. Huff, Kansas City

CONSTITUTIONAL SECRETARY: Phillip A. Godwin, Lawrence

TREASURER: Edward G. Campbell, Emporia

AMA DELEGATE 1975/76: George E. Burket, Jr., Kansas City

AMA ALTERNATE DELEGATE 1975/76: Alex Scott, Junction City

SPEAKER: Clair C. Conard, Dodge City

VICE-SPEAKER: M. Robert Knapp, Wichita

The caucus of the Council districts announced the selection of the following to serve as Councilors from their respective districts:

DISTRICT 6—Donald R. Pierce, Topeka

DISTRICT 7—Royal A. Barker, Council Grove

DISTRICT 10—John B. Jarrott, Hutchinson

DISTRICT 12—Vernon W. Filley, Pratt

DISTRICT 16—Floyd L. Smith, Jr., Colby

DISTRICT 18—Glenn Madsen, Lawrence.

It was announced that Dr. Huff resigned as Councilor of DISTRICT 2, and Robert P. Hudson, who served as Alternate Councilor, was elected to fill the unexpired term as Councilor for District 2.

Johnson County Medical Society formally invited the Kansas Medical Society to hold its 116th Annual Meeting in Overland Park. Both Johnson and Wyandotte medical societies will host the meeting, which is planned for May 4-7, 1975, at the Glenwood Manor.

John N. Blank, M.D., the newly installed President, delivered a brief address, after which the House of Delegates adjourned.

RESOLUTION NO. 74-1

Minority Students

WHEREAS, The Kansas Medical Society is interested in increasing the number of qualified applicants from minority groups who apply to medical school; therefore be it

Resolved, That the local component medical societies be encouraged to initiate an outreach program to contact highly qualified minority students at an early stage in their career and encourage them to seek a career in medicine.

RESOLUTION NO. 74-2

Revision of the School Physical Form

WHEREAS, The Kansas High School Activities Association has requested the School Health Committee of the Kansas Medical Society to revise the school physical form; therefore be it

Resolved, That the following section be deleted from the present school physical form:

The section requiring body type-maturation status; and be it further

Resolved, That the following sections be added to the revised school physical form:

(1) A section using the column headings "normal," "abnormal," and "explanation," rather than the specific information required on the present form;

(2) A section requiring a routine urinalysis.

RESOLUTION NO. 74-3

Opinion Survey

WHEREAS, The Fee Equity Committee cannot properly function unless it can get concrete answers to the following questions:

1. What power does the Kansas Medical Society have in fee regulation (determination)?

2. What factors set relative value scales for different areas of specialization, *i.e.*, one specialty to another?

3. What factors determine fees for new procedures?

4. How does physician-determined relative value scale relate to third-party carriers evaluation (reimbursement) to work performed; therefore be it

Resolved, That the Executive Committee carefully supply the answers to these questions to the Fee Equity Committee at the Fall 1974 House of Delegates meeting.

RESOLUTION NO. 74-4

House of Delegates, Interim Session

Resolved, That section 5.54 of the By-Laws of the Kansas Medical Society be amended to read:

5.54 INTERIM SESSION. The House of Delegates shall meet annually, for a session of one day, on the first Sunday in November, unless the date is changed

prior to October 1 by action of the Council. The place of the meeting shall be selected by the Council prior to October 1, but shall be in some city other than where the next annual session will be held.

RESOLUTION NO. 74-5

Postgraduate Medical Education

Not adopted.

RESOLUTION NO. 74-6

Professional Advisory Panel

WHEREAS, The State Board of Health has been replaced by a Secretary of Health and Environment, and no professional advisory board has been provided in the reorganization of the Department of Health, thus making it incumbent upon the Kansas Medical Society to offer professional counsel; and

WHEREAS, This reorganization is of extreme importance for future health needs and services, the distribution of federal grants for all health services, and the administration of a substantial amount of money; therefore be it

Resolved, That the Kansas Medical Society offer the Governor of the State of Kansas the services of an ongoing committee of physicians, a professional advisory panel to serve on an advisory and consultative basis to the Governor and the Secretary of Health and Environment; and be it further

Resolved, That the composition of the panel, the method of appointment, and the terms of membership be determined in this manner:

1. Each Council District shall annually submit one name to the President of the Kansas Medical Society, who shall, with the approval of the Executive Committee, select nine physicians to be on the panel;

2. The panel first appointed shall be: three appointed for one year, three appointed for two years, three appointed for three years; and each term thereafter consisting of three years;

3. Each member of the panel shall be eligible to serve no more than two consecutive three-year terms, with three members replaced or reappointed each year; and be it further

Resolved, That this professional advisory panel report to the Council four times each year on its activities; and be it further

Resolved, That copies of this resolution be sent to the Governor of the State of Kansas, and the Secretary of Health and Environment of the State of Kansas.

RESOLUTION NO. 74-7

Section on Nuclear Medicine

Not adopted. Referred to the Council for study.

RESOLUTION NO. 74-8

JCAH Surveys

Resolved, That whenever a survey is conducted by representatives of the JCAH, a member or members of the hospital medical staff shall be encouraged to accompany the JCAH representatives at all times.

RESOLUTION NO. 74-9

Probationary Members

WHEREAS, Many component societies require new membership applicants to serve a probationary period, often up to one year; and

WHEREAS, Some societies designate these physicians as probationary members, authorize them to attend meetings and to participate in the affairs of the component societies; and

WHEREAS, The AMA has a special membership category that enables such members to participate within the AMA until such time as they are accepted as active members or are dropped from the membership rolls of the component society; and

WHEREAS, The Kansas Medical Society By-Laws do not recognize probationary members and thereby delay for as long as a year or more the association of physicians practicing in Kansas with the Kansas Medical Society; therefore be it

Resolved, That the By-Laws be amended by renumbering Sections 1.6125 and 1.6126 as 1.6126 and 1.6127 respectively, and that a new 1.6125 be added to the By-Laws as follows:

1.6125-probationary members. Upon certification by the secretary of a component society that a member has been accepted on a probationary basis, the Kansas Medical Society will place his name on the membership rolls. The probationary member will receive the JOURNAL and all other correspondence forwarded from the state office. He may serve on committees and commissions but is not eligible to serve as a state or AMA delegate, councilor, or officer. No dues will be assessed during this period. This category of membership terminates when the component society either votes him into active membership or drops him from their membership rolls.

RESOLUTION NO. 74-10

Tabled.

Blue Shield

WHEREAS, It has been called to the attention of physicians that Blue Shield may be selling full-service physician contracts to the subscriber, without a legal contract between Blue Shield and the obligated physician. If this is factual, then the Kansas physician should be informed of his legal obligation, or lack of it, under such an agreement; and

WHEREAS, Some physicians have submitted their fee schedules with a signed application of agreement. They are in turn being classified as a participating physician without further binding agreement as to the fees to be paid by Blue Shield. They are also being asked to discount charges to the patient for services rendered, where indicated by Blue Shield as being excessive; and

WHEREAS, It is basic to a contract that both parties be bound and if only one party is bound then neither is bound. If the material element of consideration, in this case fees, is not agreed on prior to designation and sale of physicians' services, this would seem to be an illusory agreement, weighed heavily in favor of Blue Shield; therefore be it

Resolved, That legal counsel be employed to examine the validity of this quasi agreement to determine the physicians' obligations under such relationship.

RESOLUTION NO. 74-11

Not adopted.

RESOLUTION NO. 74-12**Postgraduate Education**

WHEREAS, It is general knowledge that continued medical education is a necessity to practice good medicine regardless of the specialty; and

WHEREAS, The Commission for Education of the Kansas Medical Society has studied these needs and has recommended that certain postgraduate requirements be met as a requisite to membership in the Kansas Medical Society; therefore be it

Resolved, That the postgraduate study requirements as adopted by the Commission for Education of the Kansas Medical Society be adopted by the Kansas Medical Society as a requirement for continued membership in the Kansas Medical Society, and that the Commission for Education implement this resolution; and be it further

Resolved, That this resolution be referred to the

Committee on Constitution and By-Laws for insertion into the By-Laws, and that it be returned to the Fall 1974 House of Delegates for final approval.

A. Requirements—150 hours of postgraduate medical education shall be completed by each member every three years as a requisite in continuing membership in the Kansas Medical Society.

1. Accredited education:

- a. A minimum of 50 hours must be in accredited postgraduate education, such as specialty scientific meetings, medical school sponsored programs, courses approved by AAFP, etc.,

- b. There will be no limit on credit given for this category, *i.e.*, all 150 hours could be from accredited courses,

- c. Courses or institutions must be approved by the permanent committee appointed by the Commission for Education,

- d. Credit shall be given on an hour-for-hour basis,

- e. Verification of attendance by the sponsoring organization or institutions must be submitted for credit to be given in accredited education.

2. Non-accredited education:

- a. 100 hours may be non-accredited education such as: (1) JOURNAL reading; (2) audio digests; (3) hospital staff meetings; (4) informal teaching; (5) publication of papers in recognized professional journals (10 hours credit each); (6) scientific meetings of state medical society, AMA, and specialty groups,

- b. Credit for this category shall be approved by the permanent supervising committee.

3. Certification by the American Academy of Family Practice or attainment of the AMA Physician's Recognition Award shall meet the requirements for continuing membership in the Kansas Medical Society.

B. Administration:

1. This program will be under the over-all supervision of the permanent committee,

2. Appropriate clerical assistance will be provided in the KMS office,

3. The program should be arranged so that one third of the members would meet the requirement each year,

4. The requirement for new members shall begin on January 1 of the year following admission to the KMS,

5. Requirements shall be on a calendar year basis,

6. The individual members shall be responsible for reporting their postgraduate education.

7. Appropriate forms shall be furnished by the KMS on a yearly basis,

8. Members not meeting requirements shall be notified six months prior to the end of their three-year period,

9. Appeals may be made to the KMS Commission for Education,

10. If a member of the Kansas Medical Society should default in this requirement, he can be reinstated after having completed the said requirements for the three years preceding the date of the request for re-instatement of his membership in the Kansas Medical Society.

C. Exemptions:

1. Honorary members of county medical societies,

2. Members retired from active practice,

3. Members in approved residency training programs,

4. Special exemptions may be made for long periods of illness,

5. Other special exemptions may be granted by the special committee upon application by individual members.

RESOLUTION NO. 74-13

Tabled.

Title XIX Payment

WHEREAS, Payment at the 75th percentile would very slightly increase the health care costs but would improve the image of the Title XIX program in the minds of physicians; therefore be it

Resolved, That the Director of Social and Rehabilitation Services be respectfully urged to institute payment under Title XIX at the 75th percentile under the range maximums.

RESOLUTION NO. 74-14

Pre-admission Certification

WHEREAS, The Kansas Medical Society believes that services should be rendered in the hospital only when medically necessary, and all admissions should be made only when medically appropriate; and

WHEREAS, Regulations such as those proposed on pre-admission certification for Medicare and Medicaid hospital admissions as contained in 20 CRF Part 405 and 45 CRF Part 50, *Federal Register*, Volume 39, No. 6, January 9, 1974, are unnecessary, not feasible in most Kansas hospitals, and duplicative; and

WHEREAS, Regulations such as those could easily de-

lay or inhibit the implementation of methods being developed to carry out provisions of Section 207, Section 249F and other sections of P.L. 92-603; therefore be it

Resolved, That the Kansas Medical Society believes that the attending physician, the local utilization review committee, and the local PSRO should be allowed to develop procedures that are consistent with regional and local community patterns and modalities of care, and this should legally satisfy the requirements of P.L. 92-603; and be it further

Resolved, That the Kansas Medical Society strongly opposes any federal or state regulations on pre-admission certification; and be it further

Resolved, That the Kansas Medical Society delegates to the AMA inform the President of the AMA of this action; and be it further

Resolved, That the President of the Kansas Medical Society send a copy of this resolution to the seven Kansas members of Congress and to the Secretary of Health, Education and Welfare.

RESOLUTION NO. 74-15

Legislative Committee

WHEREAS, Legislative matters frequently require fast decision making which would not easily be accomplished through a commission; and

WHEREAS, There is a need for increased communication and continuity of action between the Legislative Committee and the Executive Committee of the Kansas Medical Society; therefore be it

Resolved, That:

1. The Legislative Committee be responsible to the Executive Committee of the Kansas Medical Society;

2. The President-Elect of the Kansas Medical Society be a voting member of the Legislative Committee, but shall not be chairman of the committee;

3. The Legislative Committee of the Kansas Medical Society be urged to meet on a regular basis throughout the year in order to:

(a) Participate in legislative interim studies involving matters of medical interest;

(b) Make recommendations regarding appointments and the implementation of legislation previously enacted by the Legislature;

(c) Draft and submit proposed legislation in areas affecting the practice of medicine and the health of the people of Kansas;

(d) Research and make recommendations regarding the Kansas Medical Society policies on impending federal legislation, and provide this information

to Kansas Medical Society delegates, the Kansas Legislature, and the U. S. Congress.

RESOLUTION NO. 74-16

Combined with No. 74-15.

RESOLUTION NO. 74-17

Combined with No. 74-15.

RESOLUTION NO. 74-18

Not adopted.

RESOLUTION NO. 74-19

Acupuncture

WHEREAS, We do not license persons under the Healing Arts Act to practice individual procedures; and

WHEREAS, The licensing of Doctors of Acupuncture would open "Pandora's Box" for this type of narrow licensing; therefore be it

Resolved, That the Kansas Medical Society is opposed to any such narrow licensing and recommends that acupuncture be treated as other modalities that fall within the realm of treatment as the present Healing Arts Act states; and that this resolution be presented to the Healing Arts Board, presently studying the status of acupuncture in Kansas.

RESOLUTION NO. 74-20

Naturopathy

WHEREAS, There are already practitioners of questionable medical modalities in the state of Kansas; and

WHEREAS, Another area of questionable value, that is naturopathy, has reared its ugly head; therefore be it

Resolved, That the Kansas Medical Society make its feelings known that we are unalterably opposed to naturopathy being included under the Board of Healing Arts, or the Department of Health, or even considered in the same category as the practice of medicine and surgery; and that this be conveyed to the legislative committee that is presently studying Senate Bill No. 704; and that all steps be taken by physicians in Kansas to see that the inclusion of naturopathy under the Healing Arts Board, the Department of Health, or any other licensing agency be defeated.

RESOLUTION NO. 74-21

Prescription Labels

Resolved, That the Kansas Medical Society strongly urge its members to have labeled all prescribed medication and refills, to include the name of the medication, the number of units prescribed, the dosage, and the number of refills authorized.

RESOLUTION NO. 74-22

Coroners in Kansas

WHEREAS, Resolution No. F72-21 regarding "Coroners in Kansas" was adopted by the House of Delegates; and

WHEREAS, There has been no obvious action on the part of the Kansas Medical Society to implement this resolution; therefore be it

Resolved, That the officers and Legislative Committee of the Kansas Medical Society take immediate steps to implement Resolution F-72-21 as adopted November 19, 1972.

RESOLUTION NO. 74-23

Payment to Utilization and Peer Review Committees

WHEREAS, Each hospital in Kansas has an effective functioning utilization review committee as required by the federal government; and

WHEREAS, Under the Kansas Foundation for Medical Care each area of Kansas has an effectively functioning peer review committee as required by the federal government; and

WHEREAS, Services in both of these functions are reimbursable; therefore be it

Resolved, That each member of every utilization review committee and of every peer review committee be reimbursed at a reasonable rate for actual work performed for utilization and peer review, and that the reimbursement be supplied by the agency requesting the review; and be it further

Resolved, That in cases where necessary, reasonable travel allowances be added to the reimbursement.

RESOLUTION NO. 74-24

Utilization Review in Nursing Homes

WHEREAS, The federal government requires utilization review in every skilled nursing home; and

WHEREAS, At least one physician must be a member of this review committee; and

WHEREAS, Services on this committee are reimbursable; therefore be it

Resolved, That each component society be encouraged to provide physician membership on nursing homes utilization review committees within its jurisdiction.

RESOLUTION NO. 74-25

PSRO

WHEREAS, The conclusion of the Arthur D. Little, Inc. report to the Bureau of Quality Assurance, the Department of HEW, includes among its many recommendations, "We cannot envision successful PSROs without the support of a large majority of physicians and it is difficult to anticipate such support without AMA endorsement"; and

WHEREAS, The AMA House of Delegates has taken the position that repeal of Section 249F of P.L. 92-603 would be in the best interest of the American people; therefore be it

Resolved, That the Kansas Medical Society support efforts to repeal the present law; and be it further

Resolved, That the Kansas Medical Society instruct its delegates to the AMA to constructively work for repeal of the PSRO law.

RESOLUTION NO. 74-26

Tabled.

PSRO

WHEREAS, A report to the Bureau of Quality Assurance by Arthur D. Little, Inc., was rendered on January 31, 1974; and

WHEREAS, The purpose of this study was to "narrow the scope of the effort to 'policy' education for medical 'gatekeepers,'" and

WHEREAS, A gate is defined as "an opening for passage in an enclosing wall, fence or barrier"; and

WHEREAS, A gatekeeper is one who tends such an opening; and

WHEREAS, The term "medical gatekeeper" graphically portrays the part to be played by those in leadership roles in PSRO; therefore be it

Resolved, That the Kansas Medical Society will not provide to the Department of HEW any "medical gatekeepers" under Section 249F of P.L. 92-603; and be it further

Resolved, The Kansas Medical Society encourages its membership to not become knowingly any part of this leadership.

RESOLUTION NO. 74-27

Peer Review Methods

Resolved, That the Kansas Medical Society encourage and support the Kansas Foundation for Medical Care in its effort to develop practical local standards and methods for medical audit and peer review by physicians of the medical necessity, quality, and appropriateness of patient services rendered in appropriate Kansas institutions; and be it further

Resolved, That the Kansas Medical Society encourage and support the Kansas Foundation for Medical Care to utilize all available resources in this effort.

RESOLUTION NO. 74-28

Hospital Boards

WHEREAS, The techniques of modern medical care are becoming increasingly complex, making professional judgments essential in the administration of a hospital; therefore be it

Resolved, That local hospital boards should include a proportionate number of physicians licensed to practice medicine and surgery, and that a copy of this resolution be sent to the Kansas Hospital Association.

RESOLUTION NO. 74-29

KMS—KUMC Relations

WHEREAS, Through the efforts of the KMS—KUMC Liaison Committee and the leadership of the KMS and KUMC, great steps have been taken in improving the communication between and relations with practicing physicians in Kansas and the KUMC; and

WHEREAS, Two results of these efforts are: (1) the implementation of a toll-free reverse WATS line into the KUMC; and (2) the new Patient Dismissal Summary Form; both of which have improved effectiveness in communication; therefore be it

Resolved, That the Kansas Medical Society commends the KMS—KUMC Liaison Committee, the leadership of the Medical School, and the leadership of the Medical Society for their fine work toward improving practicing physician-KUMC relations; and be it further

Resolved, That the KMS—KUMC Liaison Committee is urged to continue their efforts in pursuit of bet-

ter relations with the Kansas University Medical Center in the future; and be it further

Resolved, That a copy of this resolution be sent to the Chancellor of the University of Kansas, the Vice-Chancellor for Health Affairs of the University of Kansas, and the co-chairmen of the KMS—KUMC Liaison Committee.

RESOLUTION NO. 74-30

Alcohol, Drug and Tobacco Abuse

WHEREAS, Because alcohol, drug, and tobacco smoking abuses directly and indirectly cause suffering and have adverse health effects on the public; therefore be it

Resolved, That the Kansas Medical Society and its members take an active role, both individually and cooperatively, in alcohol, drug, and tobacco smoking abuse prevention and cure through: (1) education; (2) treatment (comprehensive care—counselling services, detoxification, and remedial medical care); and (3) consultation and advisory support of agencies and groups interested in alcohol, drug, and tobacco smoking abuse problems.

RESOLUTION NO. 74-31

Emergency Medical Care & Disaster Services

WHEREAS, Emergency medical care and disaster services are becoming of increasing concern to the public; and

WHEREAS, Special professional personnel are being trained for such services; and

WHEREAS, Federal funds and grants are being made available for the implementation of many such related activities; therefore be it

Resolved, That component medical societies provide guidelines for the development of all emergency medical and disaster services activities in their communities.

RESOLUTION NO. 74-32

Young Family '74

Resolved, That the Kansas Medical Society heartily congratulates and commends the Woman's Auxiliary to the Kansas Medical Society on their fine conference, "The Young Family '74," which provided a meaningful health educational opportunity to the people of this state.

RESOLUTION NO. 74-33

Executive Committee

WHEREAS, The work of the Kansas Medical Society is becoming increasingly complex; and

WHEREAS, Two examples of the above are increasing contact with the federal government and increasing relationships with a variety of agencies; and

WHEREAS, The Executive Committee is most readily accessible for decision making on short notice; therefore be it

Resolved, That the Executive Committee meet every month during the year, and at any other times deemed advisable.

RESOLUTION NO. 74-34

AMA-ERF

WHEREAS, Kansas Physicians and their wives have contributed in a most generous manner to AMA-ERF; and

WHEREAS, The results of their effort this year will present an unrestricted check to the Kansas University of Medicine from AMA-ERF in the amount of \$18,815.15; therefore be it

Resolved, That the Kansas Medical Society express its gratitude to the members for their participation in the program and urge their continued support.

RESOLUTION NO. 74-35

Malpractice Claims

WHEREAS, Malpractice claims against physicians are rising because of

1. Aggressive plaintiff attorneys,
2. Increasingly complicated procedures with corresponding risk exposure,
3. A medically more sophisticated and educated public (patient),
4. A change in the physician-patient relationship,
5. Increasing complexity of informed consent; and

WHEREAS, Our present system of professional liability insurance fails to provide:

1. Statistics relevant to:
 - a. number of claims against Kansas physicians,
 - b. number of claims settled before trial, during trial, or as a consequence of trial decisions,
 - c. amount of judgments against physicians and insurance companies,
 - d. details of negligence or malpractice when these are issues in malpractice cases or trials,

2. Meaningful peer review of Kansas physician applicants by a committee of Kansas physicians,
 3. Premium stability,
 4. Guaranteed insurability,
 5. Continued education of Kansas physicians in problems of malpractice,
 6. Per diem allowance to physicians while engaged in self-defense during actual trial,
 7. Premiums for Kansas physicians based on Kansas experience;
- and

WHEREAS, Group plans have been adopted and successful in 34 states, some for as long as 24 years, offered by highly reputable, stable, reliable insurance companies; and

WHEREAS, Your Malpractice Committee has studied the provisions of these group plans, presented by interested professional liability companies, and has also heard opposing testimony by a company presently insuring some Kansas physicians; therefore be it

Resolved, That the Kansas Medical Society recommend to its entire membership the adoption of the group plan concept, but only after:

1. A survey indicating interest by a majority of responding physician members,
2. Completion of a survey by the selected insurance company indicating marketing feasibility at a premium comparable to present levels,
3. Final review by the Council of the Kansas Medical Society.

RESOLUTION NO. 74-36

Not adopted. Filed for Information.

Joint Practice Commission

WHEREAS, The Joint Practice Task Force of KMS and KSNA is working regularly in committee to define objectives for and to find ways of implementing the emerging "expanded role of the nurse" in providing modern health care to Kansans; and

WHEREAS, The physician KMS members of the Task Force Committee need help and guidance in cooperating with KSNA in this important effort; therefore be it

Resolved, That KMS will give help and guidance to its physician members of the Task Force Committee; and be it further

Resolved, That KMS will make known through its membership and delegates its willingness to cooperate with KSNA in finding new ways for qualified nurses to share in the provision of health care to Kansas residents.

RESOLUTION NO. 74-37

Ethics

Resolved, That it is contrary to the concepts and principles of ethical medical practice for a physician to permit his name and signature to be used for the sole purpose of ordering diagnostic tests and procedures when both the individuals undergoing said tests and the results of those tests remain unknown to said physician, except in the restricted circumstances imposed by law on responsible official public health physicians.

RESOLUTION NO. 74-38

Drug Company Financial Assistance in Postgraduate Medical Education

WHEREAS, Postgraduate medical education costs have soared; and

WHEREAS, Many postgraduate medical education departments over the country utilize funds provided by various pharmaceutical companies and health agencies; and

WHEREAS, The postgraduate medical education program at the University of Kansas is finding it difficult to maintain quality programs without a significant increase in fees; and

WHEREAS, The KMS previously recommended against the use of funds from pharmaceutical firms by Resolution No. 25 passed in 1962; and

WHEREAS, Most pharmaceutical firms or health agencies are willing to underwrite part of the costs of postgraduate medical education; therefore be it

Resolved, That the KMS reverse its decision of 1962 and encourage postgraduate medical education organizations in the state of Kansas to utilize funds from pharmaceutical firms or health agencies provided that the postgraduate medical organizations involved maintain complete control of the content and curriculum of the postgraduate program.

RESOLUTION NO. 74-39

Chiropractic

WHEREAS, The Medical Society has taken a stand in the past regarding the cult of chiropractic; and

WHEREAS, Now would seem to be an advantageous time to take positive action regarding the practice of chiropractic in the state of Kansas since revisions to the Healing Arts Act are now being considered by the state legislature; and

WHEREAS, It appears that the number of chiroprac-

tors in the state is increasing rather than decreasing; and

WHEREAS, Even the federal government agrees with us regarding the practice of chiropractic as evidenced by the following statement in a 1968 Report of the Department of Health, Education and Welfare:

"Chiropractic theory and practice are not based upon the body of basic knowledge related to health, disease and health care that has been widely accepted by the scientific community. Moreover, irrespective of its theory, the scope and quality of chiropractic education do not prepare the practitioner to make an adequate diagnosis and provide appropriate treatment,"; therefore be it

Resolved, That the officers, legislative committee, and all members of the Kansas Medical Society actively work to have all references to chiropractors stricken from the Healing Arts Act, since chiropractic is based on an unscientific premise and does not belong in the healing arts.

SUBSTITUTE FOR NO. 74-40

Resolved, That the House of Delegates of the Kansas Medical Society approve the content and intent of Resolution No. 74-40 as minimum guidelines for study by the Legislative and Executive Committees of the Kansas Medical Society.

RESOLUTION NO. 74-40

Referred to the Legislative and Executive Committees.

Healing Arts Act

WHEREAS, HB-2018 was introduced in the 1974 session of the Kansas Legislature which would considerably revise the Healing Arts Act; and

WHEREAS, No action was taken on HB-2018 by the legislature except to refer it for study in the interim between sessions; and

WHEREAS, The officers, Legislative Committee, and staff of the Kansas Medical Society should have some guidance in their discussions with the legislators regarding these proposed revisions; therefore be it

Resolved, That the Kansas Medical Society House of Delegates adopt as a policy statement the following comments regarding the proposed revisions of the Healing Arts Act as enumerated in HB-2018:

1. The last paragraph of Sec. 6, K.S.A. 65-2811 provides for temporary certificates to practice for those persons in a full time approved postgraduate training

program. The language in this section should be changed to include institutions and clinics affiliated with the parent training institution.

2. Sec. 10, K.S.A. 65-2828 eliminates the statutory minimum grade levels that must be obtained on examinations for licensure. We believe the grade level minimums should be maintained and that Sec. 11 should be deleted.

3. Sec. 16, K.S.A. 65-2836 deals with the revocation, suspension, annulment, denial, or limiting of a license when the licensee is guilty of certain acts. Item (10) "unprofessional conduct" (N) states: "participating in any action as a member of hospital staff or otherwise designed to or which results in the exclusion of any physician licensed to practice medicine and surgery from the medical staff of a nonprofit hospital licensed in this state because of such physician's school of practice, or without just cause." We feel this is an unnecessary and dangerous incursion into hospital medical staffs. There is ample opportunity for redress in this type of situation through our court system, and has no business being included in the Healing Arts Act and must be removed.

4. Sec. 27, K.S.A. 65-2864 (a) states that every licensee waives any privileged communication which may have bearing on an alleged violation. We object strenuously to any such blanket authorization to investigate privileged communications.

5. Sec. 27, K.S.A. 65-2864 (B) provides that every person who accepts the privilege to practice the healing arts in this state shall automatically give consent to submitting to a mental or physical examination whenever the board shall so request. This implied consent greatly infringes on individual freedom and we feel the board should be required to show cause before an individual is compelled to submit to such examination, therefore, the law should provide for an appeal mechanism.

6. Sec. 29, K.S.A. 65-2871 is the definition of the practice of chiropractic. One glaring addition to this section is the term "Chiropractic Physicians." According to Webster, the definition of physician is "a doctor of medicine." Chiropractors, by no stretch of the imagination, could ever qualify to be called doctors of medicine. The word "physician" should be struck from this section wherever it appears. They should be referred to as chiropractors.

Further in this same section, chiropractors are authorized to draw blood for diagnostic purposes. This should not be allowed and, therefore, Sec. 29 should end after the phrase, "and shall not practice obstetrics or perform surgery."

RESOLUTION NO. 74-41**Hospital Medical Staff Autonomy**

WHEREAS, Duly licensed and credentialed doctors of medicine and osteopathy have primary responsibility in diagnosing and treating patients in the hospital setting; and

WHEREAS, The American College of Hospital Administrators and the American Hospital Association have been busy since 1970 in attempts to bring about changes in the constitution and bylaws of the medical staffs at their hospitals, the point of these revisions being to increase the authority and control of hospital administrations over private physicians and hospital staffs, and to interject hospital administration into daily medical decision making of medical doctors in the hospital setting; and

WHEREAS, The best medical care will accrue to the in-hospital patient in a setting where there is a two-fold division of authority—one, in which the administration runs the physical plant and supportive services of the hospital; and one, in which the medical staff is responsible for the medical practice in the hospital; and

WHEREAS, It is imperative that each medical staff maintains its sovereignty in relationship to its organization structure, credentialing, and peer review of its members, and in overseeing the quality of care practiced by its members; therefore be it

Resolved, That the House of Delegates of the Kansas Medical Society upholds the principle of hospital medical staff responsibility for the day-by-day practice of medicine in the hospital, for standards of patient care, and also upholds the principle which states that the responsibility for reviewing and maintaining the standards of patient care must remain in the hands of the medical staff with the support of hospital administration; and be it further

Resolved, That the House of Delegates make each physician member aware, by all available educational means, that certain forces in the hospital field are attempting to bring about increased authority of hospital administrations to control private physicians on hospital staffs; and be it further

Resolved, That each member physician of the Kansas Medical Society be urged to be certain that no by-laws changes are allowed to be effected in the hospitals where he practices which would tend to dilute his responsibility or authority to use his best medical judgment in the care of his patients consistent with the general standards of care recommended by the medical staff and approved by the governing board.

RESOLUTION NO. 74-42**SB-2994 and HB-12053**

WHEREAS, U. S. Senate Bill 2994 known as the National Health Planning and Development Act, and U. S. House Bill 12053, sometimes known as the Roy-Rogers Bill, a similar proposal, seem to consolidate many public health services, such as Comprehensive Health Planning, Regional Medical Programs, and Hill-Burton financing; and

WHEREAS, These same bills provide for governor-appointed state health commissions, similar to that of public utilities, to regulate physicians' charges, license facilities, certify the need for services, review quality of care and set standards; and

WHEREAS, All the authority extended to the governors is through a five-man panel appointed by the Secretary of HEW; and

WHEREAS, Experience to date in no way revealed state or federal intervention in health care delivery to improve quality or availability of same; therefore be it

Resolved, That the House of Delegates of the Kansas Medical Society go on record as opposing enactment of SB-2994, HR-12053, and all similar legislation; and that our Congressmen and Senators be so informed; and be it further

Resolved, That the AMA be informed of this action.

RESOLUTION NO. 74-43**Partisan Support for Candidates**

WHEREAS, Two outstanding men are candidates for the highest elective office in the state, U. S. Senator from Kansas; and

WHEREAS, The Kansas Medical Society is a non-political organization; therefore be it

Resolved, That the Kansas Medical Society, as an organization, should refrain from partisan politics; and be it further

Resolved, That the image of the Kansas Medical Society should be identified with neither candidate; and be it further

Resolved, That neither candidate be given space in the JOURNAL OF THE KANSAS MEDICAL SOCIETY.

RESOLUTION NO. 74-44**Amendments to the PSRO Law**

WHEREAS, The American Medical Association is testifying before the Health Subcommittee of the Senate,

submitting some 19 amendments to the PSRO law for the subcommittee to consider; and

WHEREAS, Senator Robert Dole is a member of this subcommittee; and

WHEREAS, Examples of the suggested amendments are:

1. That quality organizations, including Foundations, could be eligible to serve as a PSRO,

3B. That guidelines cannot be substituted for individual professional judgment, and that certification of institutional care be deleted from the PSRO law,

11. Explain more fully which organizational expenses will be reimbursable,

13. PSRO review should apply to all federal programs such as the Veterans Administration and Public Health Services,

14. To require PSRO on-site inspections to fully accredited hospitals is unwarranted duplication.

16. Authorize the Secretary of HEW to contract directly with medical societies; be it therefore

Resolved, That the House of Delegates concur with the suggested amendments to the PSRO law if indeed the law cannot be repealed, and direct the President of the Kansas Medical Society to so advise the Subcommittee on Health, and especially Senator Robert Dole of Kansas.

RESOLUTION NO. 74-45

Tabled.

House of Delegates Agenda

WHEREAS, Delegates to the Kansas Medical Society necessarily need to discuss important legislative matters relative to medical care in the state of Kansas; and

WHEREAS, All commission, necrology, and budget reports could be printed and distributed; therefore be it

Resolved, That the agenda for the first session of the annual meeting of the Kansas Medical Society House of Delegates be limited to items of absolute necessity, *i.e.*:

- Nominating Committee
- Woman's Auxiliary
- Executive Secretary
- Guest Speaker (one or two)
- Presidential Report
- Calendar of Resolutions.

RESOLUTION NO. 74-46

Executive Committee

Resolved, That the By-Laws be amended to include

the Speaker of the House of Delegates and the Vice-Speaker of the House of Delegates as members of the Executive Committee of the Kansas Medical Society; and be it further

Resolved, That the Constitution and By-Laws Committee draft the language to place this in the By-Laws.

RESOLUTION NO. 74-47

Physicians' Fees

WHEREAS, Price controls on medical care services under the Economic Stabilization Act expired April 30, 1974; and

WHEREAS, Physicians' fees increased at a rate far below that of the rest of the economy during the controlled period; and

WHEREAS, Physicians are now rightfully able to adjust their fees to offset increased costs; therefore be it

Resolved, That the Kansas Medical Society urge physicians to use self-restraint and increase fees only as necessary to meet increased costs.

RESOLUTION NO. 74-48

Woman's Auxiliary to the Shawnee County Medical Society

WHEREAS, The Woman's Auxiliary to the Shawnee County Medical Society provided the delegates and their spouses with a most enjoyable, entertaining and stimulating evening through their review, "Red, White and Wonderful"; and

WHEREAS, The exceptional talents of Twink Lynch and Edith Lessenden, the professional caliber of the performance by the cast, and the large amount of time and effort required to stage such a production are appreciated; therefore be it

Resolved, That this House of Delegates of the Kansas Medical Society express its deep thanks to and fond affection for the Woman's Auxiliary to the Shawnee County Medical Society.

RESOLUTION NO. 74-49

Thanks to the Shawnee County Medical Society

Resolved, That the Kansas Medical Society extend their sincere thanks to the Shawnee County Medical Society for their hard work and the fine job done in all phases involved in arranging the 1974 meeting of the House of Delegates.

Council Meeting

Report of Meeting Held May 8, 1974

A meeting of the Council was held at 1:00 P.M., immediately after the conclusion of the House of Delegates on Wednesday, May 8, 1974, at the Downtown Ramada Inn, Topeka. Dr. John N. Blank, President, called the Council to order.

Present were Dr. Blank; Drs. Royal A. Barker, Thomas P. Butcher, George E. Burket, Jr., Edward G. Campbell, Francis T. Collins, Clair C. Conard, Sigurd S. Daehnke, Galen W. Fields, Vernon W. Filley, Richard M. Glover, Phillip A. Godwin, Robert P. Hudson, John D. Huff, M. Robert Knapp, Edward E. Long, Wendale E. McAllaster, Warren E. Meyer, Gerald L. Mowry, Donald R. Pierce, George W. Pogson, Donald J. Smith, Floyd L. Smith, Thomas F. Taylor, John W. Travis, Wayne O. Wallace, Kenneth D. Wedel, James W. Wilson, and Emerson D. Yoder.

Also present were Dr. Kenneth Sawyer, Dr. J. David Taylor, Mr. Dave Morrison, Mr. Hank Parkinson, Mrs. Martha E. Hunt, Mr. James E. Agin, Mr. Jerry Slaughter, and Mr. Oliver E. Ebel.

There was a discussion of PSRO. The following statement was approved by the Council as an accurate expression of actions taken by the House of Delegates:

The House of Delegates of the Kansas Medical Society today called for constructive amendment or repeal of the professional review requirements of the Social Security Amendments of 1972, supporting the position taken earlier by the American Medical Association. This action reflected the conviction of the delegates that the federal PSRO law is not in the best interest of high-quality medical care. At the same time, the physician delegates voted unanimous support for the efforts of the Kansas Foundation for

Medical Care to develop a system of review and accountability related to the medical necessity, quality, and appropriateness of medical services received by Kansas citizens.

Mr. Parkinson gave a report on the Public Information activities of the Society, noting that it was the fourth year for this program.

By unanimous endorsement, Dr. Vale Page, Plainville, was appointed Chairman of KaMPAC for another year. Mrs. Robert Moore, Caney, was elected to be the Auxiliary representative on the Board.

The Council re-elected Dr. John A. Segerson, Topeka, to another three-year term on the Editorial Board. Dr. David E. Gray was re-appointed Editor of the JOURNAL OF THE KANSAS MEDICAL SOCIETY.

A contribution of \$500 to the Kansas School Health Advisory Council was approved. The Council also approved the purchase of two typewriters for the Executive Office, as well as a cost-of-living increase for the secretarial staff in the amount of 10 per cent.

After a report by Dr. Taylor on a question of ethics, Drs. Filley and Field were appointed to review the matter in question.

It was decided that the Nominating Committee for 1975 would be elected at the September Council meeting.

In discussing the Nurse Practice Act, it was suggested that a joint committee with representatives from the Kansas Medical Society, Kansas Hospital Association, and Kansas Nursing Homes Association be organized, which would then work with the Kansas Nurses Association and the Kansas League for Nursing in an attempt to revise the practice act.

KaMPAC

New Mailing Address Effective Now:

1300 Topeka Blvd., Topeka, Kansas 66612

Kansas Foundation for Medical Care

Official Proceedings, Corporate Members Meeting

The second annual meeting of the corporate members of the Kansas Foundation for Medical Care was held on Sunday, May 5, 1974, at the Downtown Ramada Inn, Topeka. Dr. Francis T. Collins, President, called the meeting to order at 11:10 A.M.

Dr. Collins read the following report:

Our responsibility is to keep you informed about the activities of your Board of Directors and further developments in the area of peer review, and about PSRO legislation. This report is a summary of activities that have occurred since my last report to you given at the Fall Session of the House of Delegates, on November 18, 1973. At that time, I stated that you would be kept aware of developments and that when the time was right, you will be asked to act upon recommendations of your Board of Directors. It is necessary to set a little background information about the progress of the formation of a mechanism to enable Kansas physicians to provide peer review for the people of Kansas.

Resolution 71-27 directed the Council to "create a Foundation . . .":

Resolved, That the Council is hereby directed to create a Foundation and to obtain a charter for its operation under the auspices of the Kansas Medical Society; and be it further

Resolved, That no activity be engaged in by such corporation even after the charter has been issued until after a critical review of the By-Laws by the Council of the Kansas Medical Society and affirmative action has been taken by the House of Delegates to place the Kansas Foundation into operation.

The Kansas Medical Society supported the concept of peer review in Resolution 71-6:

Resolved, That the Kansas Medical Society adopt as a policy statement the following:

The Kansas Medical Society is in favor of and will promote the execution of peer review only if it is truly peer review—that is, review of physicians by *practicing physicians* of Kansas; and be it further

Resolved, That the Peer Review Committee continue its efforts and that this committee contact the component societies for recommendations regarding peer review and that a revised set of guidelines be presented to the Fall meeting of the Council and that Council recommendations be presented to the House of Delegates for adoption.

The House authorized the "Foundation to become active" in Resolution 72-36:

Resolved, That the House of Delegates adopt bylaws for the Kansas Foundation for Medical Care and authorize the corporation to become active.

The House requested that "any review process, *i.e.* Foundation Peer Review, be done by physicians in Kansas," by passing Resolution 73-44.

The House of Delegates authorized establishment of guidelines for peer review and presented these guidelines to the Foundation by action of Resolution 72-37:

Resolved, That the House of Delegates establish guidelines for the operation of a peer review program in Kansas, and that they be presented to the Foundation.

The Foundation was instructed to function "only as an independent contractor" in action taken on Resolution 72-6:

Resolved, That the Kansas Foundation for Medical Care, when dealing with governmental agencies, may function only as an independent contractor.

By supporting Resolution 73-44, the Foundation was requested to be responsible for the peer review process in Kansas:

Resolved, That any review process, such as Foundation Peer Review, of physicians located within the boundaries of Kansas should be done by an organization contained within the state of Kansas and directed by the physicians of Kansas; and be it further

Resolved, That a copy of this resolution be sent to the AMA Ad Hoc Advisory Committee on PSROs; William Bauer, M.D.; Department of HEW; and to the Senators and Congressmen of Kansas.

In order to implement the actions of the House of Delegates, the Kansas Foundation for Medical Care was incorporated in February 1972, and actions were started to provide the mechanism required.

We became a member of the American Association of Foundations for Medical Care. This helps give us current information about activities relative to the PSRO legislation and national Foundation activities. We have attended many meetings and have addressed several groups about activities of the Foundation in establishing the mechanism for our performance. These meetings have included ASIM, AMA, RMP, and other local groups. We have had good cooperation of the regional PSRO office in Kansas City in trying to keep abreast of the changes taking place. We have received

reams of paper, letters, reports, recommendations, and implications concerning the law. We have received the PSRO manual in the first draft and what few guidelines are available.

We have had frequent Executive Committee meetings, alone and in conjunction with the Kansas Medical Society Executive Committee. There have been several meetings of the Board of Directors since the last annual meeting of the corporation.

Dr. Edward Ryan, of Emporia, the Peer Review Chairman, has formed the State Peer Review Committee and they have had several meetings. A subcommittee is working on screens and guidelines. He has been instrumental in establishing seven regional areas with their committees as well as forming the 18 Council district review committees. He has been in contact with some of the hospital utilization committees and we will soon have a separate physician in charge of utilization review. Doctor Ryan's activities have all been supported by the Board of Directors and he is continuing his work in this organizational field.

We made a presentation to the HEW officials last fall during the hearings about the regional area delineation, requesting that Kansas be designated a single PSRO region, as was requested by the Kansas Medical Society in Resolution 73-44.

The PSRO section became law in the fall of 1973, when section 249 of public law 92-603 amendments to the Social Security Act was passed. This was done, according to Congress, to provide assurance that services are being provided most economically and without sacrifice of quality. Only physicians can make the kind of decisions necessary to achieve this assurance of quality. "Congress wants the assurance they are getting their money's worth and they realize that non-professionals can't recognize quality," therefore, it is up to the physicians to:

- a. Find the facts about health care practices;
- b. Determine where the public is and isn't getting its money's worth; and
- c. Take action to solve problems and to inform the public that physicians are interested and can give the assurance that the people are getting their money's worth.

Until January 1, 1976, HEW can only contract with groups of physicians to perform the PSRO function. After that, if physicians are unwilling or unable to perform this function, the choice may be state health department or medical school, or the fiscal administrator of federal programs, or other interested groups.

The law states and the congressional intent is that there will be local determination of the screens and

guidelines, subject to review by the national PSRO Committee. We have some input into this phase now, but after screens are established and bureaucratic interpretation takes place, the outcome may be much different from the intent of the law.

Presently, the law requires in-hospital utilization and in-house utilization review in skilled stage I nursing homes, where the payment for the care is received from the federal government. This especially concerns the length of stay, the medical necessity of services, and level of care. We are convinced that as time passes, physician services as well as other providers will be included and eventually outpatient care and home and office care will be included.

In my presentation to the House in November 1973, I recommended that decisions concerning PSRO and our commitment be delayed until the Foundation could accumulate the material to enable the physicians of Kansas to make an educated judgment and decision about our willingness to become involved. The minutes of the House in November (11-18-73) state: "The House then acted to request the Council to follow the Collins Report and recommend that the Collins Report be published in the JOURNAL. This was approved."

To enable the Foundation to implement this action of the House, your Board of Directors felt that since Kansas had been declared a single PSRO region, we needed more expertise in management and help in the organization of an umbrella mechanism to serve as a buffer between all third parties and Kansas physicians; to have input into protecting the right of local determination of screens and guidelines; and the right of performing our own peer review. Therefore, a meeting of the Board of Directors was held on April 4, 1974; presentations were made by several companies who had been asked to build their comments and proposals about the following areas:

1. Management of non-professional and clerical services and expertise in peer review programs.
2. Progressive current and long-range planning.
3. The ability to accumulate, store, and retrieve data.
4. Save physician time involvement.
5. Financial resources.

The companies who made presentations were:

Optimum Systems, Inc., Santa Clara, California
 Health Applications Systems, Burlingame, California
 Dikewood Corporation, Albuquerque, New Mexico
 Uni-Med Services, Inc., Denver, Colorado
 Kansas Blue Cross-Blue Shield, Topeka
 American Health Systems, San Francisco, California.
 The EDS Corporation of Dallas, Texas, was invited

and we did have a prior conference with their representative, but they decided not to appear at this meeting.

After hearing these presentations it became obvious to the Board that to enable us to produce a viable mechanism by which the Kansas Medical Society could implement Resolution 72-36 and Resolution 73-44, financial assistance was needed. The Executive Committee of the Foundation met with the Executive Committee of the Kansas Medical Society and the decision was made to apply to the Regional Medical Program for an education grant in the amount of \$30,000. The decision was also made to apply to HEW for a planning grant in the amount of nearly \$50,000 to continue the educational and planning activities for a six-month period. These applications are entirely without any commitment to the Kansas Medical Society except to decide at the end of the six months time whether we choose to apply for a conditional determination of PSRO or we decide not to do our own peer review. These grants have been applied for and we have every indication that they will both be granted. The Dike-wood Corporation of Albuquerque was contracted with, by the Foundation and with the approval of the Executive Committee of the Kansas Medical Society, to draw up the grant applications and to help us in the preparation of the educational program that will be used during this six-month period. Their fee is less than \$2,000 for this purpose and we are under no commitment to engage them further if we do not desire to do so. This fee will be paid for out of the grant monies.

During the six-month period the planning will be carried out, the programs will be taken to all segments of Kansas physicians and hospitals and other interested providers. The clerical and other expense will be funded by these grants. Mr. Jim Agin, who is serving temporarily as the Project Director, will receive a portion of his salary from the grant.

The purpose of the program will be to inform physicians of the different aspects of PSRO, and the alternatives to PSRO. These programs will be presented in 25 areas in Kansas including the 18 Council districts of the Kansas Medical Society. Each program will have a representative from the KFMC Board of Directors, the acting Executive Director of the KFMC, a representative of a management service company, and the President of the KFMC, when possible. This grant will also include some equipment and supplies, as well as salaries for the staff needed.

During this planning stage and informational stage, you as a physician will have both the opportunity and the responsibility to be aware of the advantages, dis-

advantages, obligations, and responsibilities if we embark on such a program with all the involvement it imposes.

At the end of the six-month planning and educational period, which will coincide with our Fall House of Delegates, you as members of the Corporate Body of the Foundation, will be asked to act upon a recommendation which will come from your Board of Directors prior to that meeting of the Corporate Body. This recommendation will be whether to accept the opportunity and responsibility to do peer review in Kansas and whether to apply for the PSRO conditional contract.

Your action at that time will then be taken to the House of Delegates meeting for approval.

The following actions were taken by the Board of Directors at their meeting April 18, 1974 (quotes from the minutes follow) :

Dr. Collins then stated that he feels the KFMC is serving the KMS and he asked the support of the Board to continue the planning phase.

A motion was made by Dr. Yoder, seconded by Dr. Glover, that the KFMC Board of Directors support Dr. Collins and his actions as President of the KFMC.

This motion was passed unanimously.

Dr. Evan Williams then moved, with a second by Dr. Kenneth L. Graham, that Dr. Collins report his actions to the Corporate Body at the May meeting, and that copies of the minutes of this meeting be distributed to the members of the Corporate Body.

This motion was passed unanimously.

Because the resources are now available both financially and with additional management help, I am requesting that this body approve the actions that have been taken by the Board, and the approval and support of the plans made for the completion of discharging our responsibility to KMS to inform physicians and to provide a mechanism whereby KMS can do peer review for services by Kansas physicians.

It is in the framework of the preceding facts, reports, and actions that I speak in opposition to Resolution 74-25 and Resolution 74-26. This report also is the basis for my speaking in favor and support of Resolution 74-27.

I will give a final report on the planning that has taken place, and the recommendations of the Foundation Board of Directors to the Fall 1974 meeting of the House. At that time, I will request a final decision from the House on matters relating to PSRO and peer review.

There followed a report by Dr. Edward J. Ryan, Emporia, the Peer Review Project Director. Dr. Ryan stated that the State Peer Review Committee is organized,

but is functioning on a limited basis due to the lack of funds to pay for peer review on a widespread basis. He pointed out that the state is divided into seven peer review subregions at the present time, and, in addition, there will be a peer review committee organized in each Council district. Dr. Ryan concluded by saying that the State Peer Review Committee will act in an appellate function to the subregional and Council district peer review mechanisms.

Dr. Collins pointed out that the HEW planning grant would not pay for peer review. HEW contract—if approved by Kansas Foundation—to be concluded in the conditional phase, following the planning phase, would contain the funds to cover peer review work.

For lack of a quorum, this meeting was for informational purposes. It was determined the Speaker of the House of Delegates would convene the corporate body during the regular session of the House of Delegates for purposes of taking formal action.

The members present, acting as an informal body, approved the actions taken by Dr. Collins and the Board of Directors since the last Corporate Body meeting, and directed the Kansas Foundation to move ahead in the planning phase to enable the Kansas Foundation for Medical Care to become the PSRO in Kansas.

Addendum

During the first session of the Kansas Medical Society House of Delegates, at 1:30 P.M. (May 5, 1974), the Speaker declared the House to be in recess in order to enable Dr. Collins to convene the members of the Kansas Foundation for Medical Care Corporate Body, to act formally on motions requiring a quorum.

Dr. Louis M. Culp, Kansas City, presented the following change in the By-Laws:

ARTICLE III, BOARD OF DIRECTORS

2. *Number, Tenure and Qualifications:*

"The number of directors shall be thirty-one (31), including the president and immediate past president of the Kansas Medical Society, and the immediate past president of the corporation, as ex-officio members; and the president of the corporation, who shall serve ex-officio with the right to vote."

This was unanimously approved.

Dr. Culp then proposed another change in the By-Laws:

ARTICLE IV, OFFICERS

2. *Election and Term of Office:*

"The Board of Directors shall elect at the annual

meeting three (3) members of the Board to serve as a Nominating Committee. The member receiving the highest number of votes in this election shall be the chairman. No member may serve for more than two (2) consecutive years and no member holding an elective office shall be eligible. The committee shall meet not later than ninety (90) days prior to the next annual meeting and present for circulation to the Board a list of candidates for the offices of the corporation as enumerated in Section 1 of this Article.

The election of officers shall be held at the regular annual meeting of the Board of Directors. In addition to the slate of candidates presented by the Nominating Committee, nominations may be created and filled at any meeting of the Board of Directors. Each officer shall hold office until his successor shall have been duly elected and qualified."

The Corporation approved of this By-Laws change.

In another action, the President and the Immediate Past President of the Kansas Medical Society were added to the Executive Committee of the Corporation.

The following election results for officers for 1974/75 were announced:

PRESIDENT: Francis T. Collins, Topeka

VICE PRESIDENT: Kenneth L. Graham, Leavenworth

SECRETARY: L. William Halling, Hays

TREASURER: Chester M. Lessenden, Topeka

The Corporate Body formally approved the actions of Dr. Collins and the Board of Directors in their efforts to implement the planning phase and to enable the Kansas Foundation to become the PSRO in Kansas.

The meeting of the Corporation was adjourned, whereupon the Speaker reconvened the House of Delegates of the Kansas Medical Society.

The Journal accepts short classified advertising from the members of the Kansas Medical Society without a charge. These ads run in three consecutive issues of the Journal and are keyed with a correspondence number. All replies are forwarded immediately to the advertiser. Other brief classified ads are accepted from members of the medical profession only upon approval of the Editor or Editorial Board.

Medical-Legal Page

Ophthalmologists Held Duty-Bound To Routinely Test for Glaucoma

Two ophthalmologists practicing as a partnership were negligent in failing to test a patient for glaucoma even though she had no symptoms of the disease, the Supreme Court of the State of Washington held.

Although the standard of the profession does not require routine testing of patients under the age of 40, because of the rarity of glaucoma in persons in that age group, the court pointed out that the test is simple, inexpensive, and harmless, and the consequence of the disease going undetected is irreversible blindness. In such circumstances, failure to perform the test amounts to negligence, the court said.

Suit was brought against the ophthalmologists by a patient who had first consulted them in 1959 for myopia. At that time she was fitted with contact lenses. She next consulted the partners in September, 1963, because of irritation caused by the contact lenses. There were additional consultations in October, 1963; February, 1967; September, 1967; October, 1967; May, 1968; July, 1968; August, 1968; September, 1968; and October, 1968.

Until the October 1968 consultation, the ophthalmologists considered the patient's visual problems to be related solely to complications associated with her contact lenses. On that occasion, one of the partners tested the patient's eye pressure and field of vision for the first time. The test indicated that the patient, who was then 32 years old, suffered from primary open angle glaucoma. She had essentially lost her peripheral vision, and her central vision was reduced to approximately 5 degrees vertical by 10 degrees horizontal. The ophthalmologist who administered the test estimated that she had been suffering from the disease for 10 years or longer.

In August 1969, after consulting other physicians, the patient sued the partners, alleging, among other things, that she sustained severe and permanent damage to her eyes as a result of the ophthalmologists' negligence. Judgment for the partners was entered following a verdict in their favor, and the appellate court

affirmed the judgment. The patient then petitioned the Supreme Court of Washington for review.

In reviewing the patient's petition, the court noted that medical experts for both sides agreed that, in the absence of symptoms of glaucoma, the standard of the profession did not require routine testing of patients under the age of 40, because the incidence of the disease in patients under 40 is only one out of 25,000 persons. However, the test is a simple pressure test, relatively inexpensive, and harmless if the physical condition of the eye permits. In this case, although the condition of the patient's eyes might have at times prevented administration of the pressure test, there was no evidence that the test could not have been timely given. Therefore, the court said, the patient was entitled to the same protection as afforded persons over 40, so that glaucoma could be timely detected and measures taken to arrest the disease and avoid its grave and devastating results.

In conclusion, the court said:

"Under the facts of this case reasonable prudence requires the timely giving of the pressure test to this [patient]. The precaution of giving this test to detect the incidence of glaucoma to patients under 40 years of age is so imperative that irrespective of its disregard by the standards of the ophthalmology profession, it is the duty of the courts to say what is required to protect patients under 40 from the damaging results of glaucoma.

"We therefore hold, as a matter of law, that the reasonable standard that should have been followed under the undisputed facts of this case was the timely giving of this simple, harmless pressure test to this [patient] and that, in failing to do so, the [ophthalmologists] were negligent, which proximately resulted in the blindness sustained by the [patient] for which the [ophthalmologists] are liable."

Reversing the judgment of the trial court and the decision of the appellate court, the Washington Supreme Court remanded the case for a new trial on the issue of damages only.

In a concurring opinion in which three judges joined, it was argued that liability should have been imposed on the basis of strict liability without fault, rather than negligence, on the ground that the theory of negligence implied moral blame. In this case, the ophthalmologists acted reasonably according to the standards of their profession. However, in determining

(Turn back to page 199)

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for a package insert in many instances. This would constitute a substantial saving for the manufacturer.

By a complete compendium, I do not mean a volume of prohibitive size. You don't need a book describing 25,000 products with an enormous amount of repetition. Rather, drugs should be arranged by class. Mutually applicable information would be provided, along with brief discussions pinpointing differences in specific drugs of that class. Listings would be cross-indexed in a useful way.

Other Available Documents as Sources of Information

Existing references such as PDR and the AMA Drug Evaluation are obviously useful but they are incomplete. Either they are not cross-referenced by generic name and do not group drugs with similar characteristics, or they do not list all the available and legally marketed drugs. And some of those omitted may be very useful.

should in no way imply control over the practitioner's prerogatives.

Why Another Compendium?

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practice of internal medicine for some 15 years, my experience as a consultant, and as a faculty member of four or five medical schools, I would estimate that a doctor uses only 30 to 35 drugs regularly. The 1972 Physicians' Desk Reference, incidentally, contained about 2,500 entries.

As to whether there should be a federal compendium, in my opinion, as stated earlier, the answer is easy—there should *not* be one. The proposal assumes that existing compendia are inadequate. We're not sure of that at all. Whatever its imperfections, the present drug information system in the U.S. is open, multifaceted, pluralistic and extensive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the man, not of the sources.

In any event, rather than pro-

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

Should Editorial Comments Accompany the Listings?

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

Implications of a Federal Compendium

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

New Compendium—A Medical Option

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per-

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Sponsorship, Compilation and Editing

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

Opinion & Dialogue

What is your opinion, doctor? We would welcome your comments.

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A SURGEON'S ODYSSEY, Loyal Davis, M.D.
Doubleday & Co., Inc., New York. 1973. 336 pages.
\$8.95.

Loyal Davis is really one of the "self-made men," rising from his humble beginnings to the peak of his chosen profession. His home was a modest one, but was filled with family affection, and a wise and discriminating philosophy of life's rights and wrongs. His parents—particularly his father—had rather unorthodox, but extremely effective methods of teaching their young son so that some of his early lessons lasted for life. This is exemplified in the first pages of the book, when he learned not to crawl over the railroad tracks between the engine and tender, and when he worked all afternoon for Mr. Falk—for "two icicle radishes," because no agreement had been reached about pay before the work was done.

He was a good and an industrious student, and made rapid progress, but can we really believe that *all* of his fellow students in medical school had this serious an attitude, despite his statement that, ". . . All of us knew that what we put into our studies in our own way would influence what our worth would be as a doctor. None of us looked to our teachers to make us doctors."

He has had definite opinions throughout his life, but in retrospect had some misgivings about his student days evaluation of the effectiveness of some of his teachers (and of the ability of present day students also). "Twenty years after graduation, I realized that Cubbins was not the great surgical teacher we thought him to be when we were students. Wolfer, in his undramatic, quiet way, taught us more about surgical principles, but at that time he ran a poor second to Cubbins. How inaccurate it would have been for the dean to have paid attention to a vote of the students upon the teaching abilities of Wolfer and Cubbins. Medical students today are no more capable of mature evaluation of teaching than we were."

He and one of his fellow students seem to have been a bit impulsive at times. Applying for internships at Cook County Hospital in Chicago, and at Kings County Hospital in Brooklyn, they were accepted in both, made

a trip to Brooklyn to start internships, saw the hospital, stayed overnight, and then the next morning resigned their internships and returned to Chicago to go to Cook County! Quite a junket for a couple of young fellows who were watching their pennies!

There are numerous interesting anecdotes, for example the group of senior students who elaborately planned and executed the pilfering of the pediatric ward refrigerator each night for two or three bottles of milk—finding out one day from a wise supervisor nurse that "the last three were Mother's milk. Didn't you recognize some difference?"

Tragedy also enters the story, as with the loss on the operating table of Danny Sikes, who was the first brain tumor patient to come directly to him, and to make matters still more difficult, was the son of a home town family friend.

Dr. Davis always had high ideals. His philosophy of the practice of medicine is pretty well summed up in two paragraphs near the end of the book: ". . . I was taught to think of my opinions and decisions about my patients as I would if they were my own mother, father, wife, sister, brother, or myself. What would I want for them? . . .

"I believe that every patient and his relatives must understand clearly what his doctor believes his condition to be and what action he believes should be taken. Often, pain and mental suffering are in large part due to the apprehension of not knowing just what the doctor is thinking. Often it is necessary to be repetitious, oversimplified and patient, but the successful treatment of disease is based upon confidence and respect between doctor and patient." If all practicing physicians—and in fact if the people of the world in general—were as considerate of others, much of our social strife would disappear."

Loyal Davis is a man who worked hard to climb from his humble beginnings to the peak of his chosen profession; he took advantage of every opportunity to improve himself, and he learned much from his preceptors and his teachers—especially from Allen B. Kanavel and Harvey Cushing. Little is said about his

(Continued on page 11)

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Book Reviews

(Continued from page 8)

contacts with, or opinions of the medical students at Northwestern University, but to have stayed in his position for so many years he must have enjoyed the association. The students' opinions of him, as a teacher, a neurosurgeon, and as the head of the department of surgery are for them to relate elsewhere.

It is a good book, well written, presented with enough of the dramatic to hold interest—one which I enjoyed reading. Kansas physicians would be interested to know that two of his classmates for their first year in medical school were later to become president of The Kansas Medical Society—Warren Bernstorff and Roy Crossen—and the latter was even a dissecting partner, sharing the same cadaver for anatomy.

(In reading autobiographies, I have wondered about quotations of specific conversations, about exact descriptions of locations or objects, and about the succession of thoughts provoked by an occasion which had taken place many years before, even during childhood. Do people really remember, with accuracy, such details of the long past, or should these autobiographies really be called "autobiographical novels," as are those "historical novels" which have sound historical facts as a basis but interwoven into a fictional narrative?)—O.R.C.

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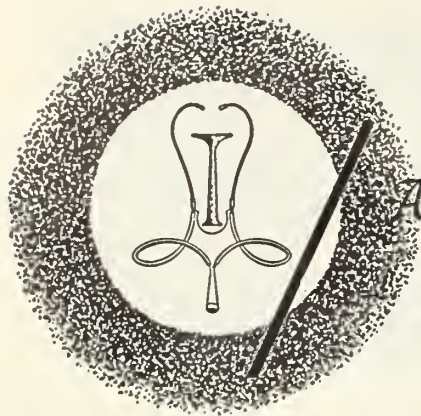
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Announcements

Professional meetings, conferences, and postgraduate courses of national importance are listed for the Doctor's Calendar. Notice of the session is posted in advance to allow the physician time to make preparations.

JUNE

- June 23-27 American Medical Association annual convention, Chicago.

JULY

- July 7-12 12th International Congress on Diseases of the Chest, Royal Festival Hall, London, England. Write: American College of Chest Physicians, 112 E. Chestnut, Chicago 60611.
- July 22-24 American Electroencephalographic Society, Seattle: "Current Practice of Clinical Electroencephalography." Write: D. W. Klass, M.D., Mayo Clinic, Rochester, Minn. 55901.
- July 28-Aug. 1 National Medical Association, Fairmont Roosevelt, New Orleans. Write: R. D. Watkins, 2109 E St., N.W., Washington, D. C. 20037.

AUGUST

- Aug. 12-15 American Hospital Association, Chicago. Write: J. A. McMahon, 840 N. Lake Shore Dr., Chicago 60611.

SEPTEMBER

- Sept. 4-7 American Association of Obstetricians and Gynecologists, Annual. The Homestead, Hot Springs, Va. Write: J. D. Woodruff, M.D., Johns Hopkins Hospital, Baltimore 21205.
- Sept. 18-21 Colorado Medical Society, Broadmoor Hotel, Colorado Springs. Write: D. G. Derry, 1601 East 19th, Denver 80218.

University of Colorado:

- June 10-15 *Family Practice Review*
- July 15-19 *Internal Medicine*, Estes Park
- July 22-26 *Human Genetics*, Aspen

- July 28-31 *Pediatrics*, Aspen
- Aug. 12-16 *Perinatal Medicine*, Snowmass-at-Aspen
- Aug. 19-23 *Nephrology*, Aspen
- Aug. 25-29 *Pathology in Gyn-Ob*, Estes Park

For further information, write the Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 E. Ninth Ave., Denver 80220.

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